

EDITED BY DON MACLEAN

Internet for all

Proceedings of the Third Internet
Governance Forum

Hyderabad, India

3-6 December 2008



United Nations

INTERNET FOR ALL

Proceedings of the Third Internet Governance Forum

Hyderabad, India

3-6 December 2008

Edited by Don MacLean

General Table of Contents

Message by Sha Zukang, Under-Secretary-General, United Nations Department of Economic and Social Affairs (UNDESA)	i
Introduction	ii
Preface	1
Setting the Scene	5
Opening Ceremony, 3 December 2008	6
Opening Session, 3 December 2008	16
Part 1 – Reaching the Next Billion	34
Chairman’s Summary of the Main Sessions	35
Panel Discussion on Realizing a Multilingual Internet	39
Panel Discussion on Access	50
Open Dialogue on Reaching the Next Billion	67
Reports of Workshops, Best Practice Forums, Open Forums and Dynamic Coalitions	84
Part 2 – Promoting Cyber-security and Trust	117
Chairman’s Summary of Main Sessions	118
Panel Discussion on Dimensions of Cyber-security and Cyber-crime	125
Panel Discussion on Fostering Security, Privacy and Openness	143
Open Dialogue on Promoting Cyber-security and Trust	159

Reports of Workshops, Best Practice Forums and Dynamic Coalitions 179

Part 3 – Managing Critical Internet Resources..... 206

Chairman’s Summary of the Main Sessions.....207

Panel Discussion on the Transition from IPv4 to IPv6213

Panel Discussion on Global, Regional and National Arrangements for Internet Governance.....229

Open Dialogue on Managing Critical Internet Resources245

Reports of Workshops, Best Practice Forums, Open Forums and Dynamic Coalitions271

Part 4 – Future Challenges and Next Steps..... 291

Chairman’s Summary of Main Sessions292

Panel Discussion on Emerging Issues.....298

Open Dialogue on Taking Stock and the Way Forward326

Reports of Workshops, Best Practice Forums, Open Forums and Dynamic Coalitions354

Wrapping Up 384

Closing Ceremony, 6 December 2008385

Postscript..... 397

Detailed Table of Contents

Message by Sha Zukang, Under-Secretary-General, United Nations
Department of Economic and Social Affairs (UNDESA)i

The Second IGF book- Markus Kummerii

The Third IGF:A Further Step from Process to Performance- Nitin Desai.. iv

Editor's introduction - Don MacLean.....vi

Editorial Approach.....vi

Observations on the Proceedings
.....viii

Preface 1

Setting the Scene 5

Opening Ceremony, 3 December 2008.....6

Opening Session, 3 December 2008 16

Part 1 – Reaching the Next Billion..... 34

Chairman’s Summary of the Main Sessions35

Panel on Realizing a Multilingual Internet35

Panel on Access: Reaching the Next Billion36

Open Dialogue Session.....37

Panel Discussion on Realizing a Multilingual Internet.....39

Introductory Remarks 39

Presentations by the Panelists 41

Discussion 47

Panel Discussion on Access 50

Introductory Remarks 50

Presentations by the Panelists 51

Discussion 60

Open Dialogue on Reaching the Next Billion 67

Introductory Remarks 67

Reports from the Panel Sessions 68

Discussion 71

Reports of Workshops, Best Practice Forums, Open Forums and Dynamic Coalitions..... 84

Realizing a Multilingual Internet 84

WS 4: Internationalized Domain Names 84

Dynamic Coalition for Linguistic Diversity 84

Access 86

WS 2: Challenges Facing Internet Operators in Developing Countries 86

WS 7: Low-Cost Sustainability Access..... 90

WS 9: Including Accessibility and Human Factors in the Universalization of the Internet 93

WS 20: Governance for Gatekeepers 95

Dynamic Coalition on Accessibility and Disability 97

Content 98

WS 16: Digital Content Strategies and Policies 98

WS 21: Knowledge as a Global Public Good 99

WS 23: Overcoming Obstacles to Effective Digital Education 99

WS 25: Digital Identifiers and IPRs 100

BPF 68: Enhanced Internet-Enabled Access and Use of Public Sector Information..... 101

Dynamic Coalition on Freedom of Expression and Freedom of the Media on the Internet 102

Development and Capacity Building 103

WS 49: A Development Agenda for Internet Governance: From Principle to Practice..... 103

WS 56: The Role of Internet Exchange Points in Creating Internet Capacity and Bringing Autonomy to Developing Nations 106

WS 58: Network Neutrality Issues and Implications for Development 108

WS 60: Capacity Building for Web 2.0 111

BPF 62: Internet Governance Capacity Building 112

BPF 64: Turkey: A Nation Transforming to Information Society..... 115

Part 2 – Promoting Cyber-security and Trust 117

Chairman’s Summary of Main Sessions 118

Dimensions of Cyber-security and Cyber-crime 118

Fostering Security, Privacy and Openness 120

Open Dialogue Session..... 122

Panel Discussion on Dimensions of Cyber-security and Cyber-crime 125

Introductory Remarks 125

Presentations by the Panelists 126

Discussion 140

Panel Discussion on Fostering Security, Privacy and Openness..... 143

Introductory Remarks 143

Presentations by the Panelists 145

Discussion 152

Open Dialogue on Promoting Cyber-security and Trust..... 159

Introductory Remarks 159

Report of the Panel Sessions 160

Discussion 161

Reports of Workshops, Best Practice Forums and Dynamic Coalitions... 179

Cyber-security and Cyber-crime.....	179
WS 28: An Interpol for the Internet?	179
WS 33: Global Culture of Cyber-security	182
OF 92: ITU Open Forum on Cyber-security	183
Fostering Security, Privacy and Openness	185
WS 29: On Building Confidence and Security in the Use of ICTs for African Countries	185
WS 83: The Future of Online Privacy: Online Advertising and Behavioral Targeting	186
Child Safety	188
WS 31: Child Safety Online	188
WS 32: Dignity, Security and Privacy of Children on the Internet	190
WS 36: Strategies to Prevent and Fight Child Pornography in Developing Countries	191
WS 37: Child Protection in the Mobile, Always-Connected Age	195
BPF 75: The European Approach to Empowering and Protecting Children Online	197
BPF 89: Child Online Protection.....	200
Dynamic Coalition on Child Online Safety.....	201
Other Issues Related to Promoting Cyber-security and Trust.....	204
WS 55: Resurrection of Online Dispute Resolution.....	204
Part 3 – Managing Critical Internet Resources.....	206
Chairman’s Summary of the Main Sessions	207
Transition from IPv4 to IPv6	207
Arrangements for Internet Governance: Global, Regional and National ..	208
Open Dialogue Session.....	211
Panel Discussion on the Transition from IPv4 to IPv6	213
Introductory Remarks	213

Presentations by the Panelists	214
Discussion	225
Panel Discussion on Global, Regional and National Arrangements for Internet Governance.....	229
Introductory Remarks	229
Presentations by the Panellists	230
Discussion	240
Open Dialogue on Managing Critical Internet Resources	245
Introductory Remarks	245
The Transition from IPv4 to IPv6.....	245
Global, Regional and National Arrangements	257
Reports of Workshops, Best Practice Forums, Open Forums and Dynamic Coalitions.....	271
Arrangements for Internet Governance.....	271
WS 22: Lessons Learned from the Engagement and Facilitation of Internet Users into Policy Development and Processes within ICANN via the ICANN Board's At-Large Advisory Committee	271
WS 26: A Code of Good Practice on Public Participation in Internet Governance.....	273
WS 43: Legal Aspects of Governance of Critical Internet Resources Functions.....	274
WS 46: The Future of ICANN: After the JPA, What?	276
WS 81: National Multistakeholder Processes and Their Relation to the IGF	279
WS 85: The Transboundary Internet: Jurisdiction, Control and Sovereignty	281
BPF 71: UK Best Practice Forum on Partnership in Action.....	282
OF 90: ICANN's Multistakeholder Model.....	284
Other Issues Related to Managing Critical Internet Resources	285

WS 24: Reforming the International ICT Standardization System	285
WS 38: Around the World in Eight ccTLDs	286
WS 40: The Evolution of the Root Server System	287
Dynamic Coalition on Open Standards	289
Part 4 – Future Challenges and Next Steps	291
Chairman’s Summary of Main Sessions	292
Emerging Issues.....	292
Reporting Back.....	294
Taking Stock and the Way Forward	295
Panel Discussion on Emerging Issues	298
Introductory Remarks	298
Presentations by the Panelists	300
Discussion	310
Open Dialogue on Taking Stock and the Way Forward	326
Introductory Remarks	326
Presentations by Panelists	327
Discussion	330
Reports of Workshops, Best Practice Forums, Open Forums and Dynamic Coalitions.....	354
Framework Policies	354
WS 3: Digital Convergence Beyond Technology: Socio-Economic Benefits, SMEs and Public Policy	354
WS 15: Delivering Universal Access and Public Value of the Internet: A Goal of National Information Policy	356
OF 73: Outcomes of the OECD Ministerial Meeting on the Future of the Internet Economy	359
Dynamic Coalition on a Framework of Principles for the Internet	361

Internet and Human Rights 365
WS 77: Internet for All – Exploring a Rights-Based Approach 365
Internet and Environment 372
WS 52: ICTs and an Environmentally Sustainable Internet 372
WS 53: Internet and Climate Change 374
Dynamic Coalition on Internet and Climate Change 375
Future Perspectives 376
WS 50: Can Internet Governance Change Global Futures, or Will Global
Futures Change Internet Governance? 376
WS 57: What Will the Web Be Like in Twenty Years’ Time? 378
WS 86: Youth and Internet Governance: Challenges for the Future 379
Wrapping Up 384
Closing Ceremony, 6 December 2008 385
Postscript 397
About the Book 403
Editors Bio 403
Aurthors 403

Message by Sha Zukang, Under-Secretary-General, United Nations Department of Economic and Social Affairs (UNDESA)

Since its inception in 2006 the Internet Governance Forum (IGF) has provided an international platform for multistakeholder dialogue on Internet governance issues. The management of the Internet is of increasing significance. It is multifaceted and complex, and needs to engage all people in the spirit of openness and inclusion.

The IGF is the only entity of its kind under the auspices of the United Nations providing a space for a diverse array of experts to discuss socio-economic and technological challenges related to the Internet. Representation at the annual IGF meetings includes governments, international organizations, the private sector and civil society, and the academic and technical communities. I am pleased that the UN Department of Economic and Social Affairs has been able to facilitate this good work through the IGF Secretariat.

One of the strengths of the IGF is that it encourages stakeholders with diverse opinions and experiences to discuss each other's concerns learn to understand each other and move towards a common understanding. The IGF has helped articulate a view of how governments and other actors can maximize the opportunities the Internet offers, how it can be used for the benefit of all humankind while addressing such important matters as security and stability of Internet infrastructure, services and applications.

With discussions taking place against the backdrop of the broad United Nations development agenda, the IGF has made it clear that good Internet governance is not an end in itself, but a means of achieving development for all. This development orientation is becoming ever more relevant.

This annual report contains the proceedings of the third IGF meeting held in Hyderabad in 2008 together with a record of its preparatory and stocktaking processes. As such it is an important reference, which I would recommend to anyone following Internet governance matters.

INTRODUCTION

The Second IGF book – Markus Kummer

This book is the second publication that documents the proceedings of the Internet Governance Forum (IGF). The first book was published on the eve of last year's meeting in Hyderabad, India and documented the first two meetings, held in Athens, Greece, in 2006 and in Rio de Janeiro, Brazil, in 2007, respectively.

The mandate requires the IGF to 'publish its proceedings'. As last year, we thought the best way to meet this requirement would be in form of a book, as it is more practical and portable than the website. The publication contains excerpts of the transcripts of all the main sessions as well as from the reports from workshops and other events. The full transcripts of all the main sessions, word for word, can be accessed on the IGF Web site. This book therefore documents the Third IGF Meeting, held in Hyderabad on 3-6 December 2008. to be distributed to all IGF participants,

While the IGF is a child of a United Nations Summit - World Summit on Information Society (WSIS) - it is very informal in its nature when compared to other UN processes as it is not constrained by the traditional procedures and protocol of intergovernmental processes. Its mandate is set out in the WSIS outcome document, the *Tunis Agenda for the Information Society* and it is clear that - the IGF is here to provide a platform for multistakeholder dialogue on public policy issues pertaining to the Internet, to foster a dialogue among all stakeholders on how to make best possible use of the Internet and also on how to limit its abuse. It is here to stimulate debate and discussion. The IGF's methodology is based on the exchange of information and the sharing of good practices. The IGF is not here to take decisions – decisions are taken by other organizations which have the mandate to do so.

From Athens to Hyderabad, there was a progression from generalizations and issue segmentation to closer linkages between the main themes. It became clear that some themes were closely linked and had to be discussed in tandem. Discussing security without addressing at the same time the Internet's openness and issues related to freedom of expression would not give the full picture. The same confluence emerged with issues of access and diversity.

When the IGF started, it was a journey into uncharted waters. However, during the first three years the IGF found a way of bringing together all stakeholder groups, Governments, the private sector, civil society, international organizations as well as the academic and technical communities. The IGF succeeded in facilitating "discourse between bodies dealing with different cross-cutting international public policies regarding the Internet and discuss issues that do not fall within the scope of any existing body", as required by the *Tunis Agenda*.¹

¹ Tunis Agenda, Paragraph 72 b)

It is my hope that this book will help interested readers gain insight into the issues and emerging mechanisms of Internet governance.

My thanks go to all those stakeholders who engaged so actively and passionately in the process, making this experiment in international cooperation such a success, thereby providing an abundance of source material for the book. To Under-Secretary-General Sha Zukang and his staff in the United Nations Department of Economic and Social Affairs for their ongoing support of the IGF process in general and in their assistance in producing this publication, in particular to Haiyan Qian, Marie Oveissi, Elvira Doyle and Matias Delfino; also to Chengetai Masango here with me at the IGF Secretariat and all the interns who have helped with various aspects of the project in particular Aniekan Udoh and Rafid Fatani. Of course, this publication would not have been possible without the dedicated work of our editor, Don MacLean. He managed successfully to condense the expanse of material documenting the Third IGF Meeting into a readable book.

The Third IGF : A Further Step from Process to Performance by Nitin Desai, Special Adviser to the United Nations Secretary-General for Internet Governance

The Third Internet Governance Forum met in Hyderabad 3-6 December 2008 in the shadow of a sudden escalation of fears about security with the massive terrorist attack on two hotels and a railway station in Mumbai on 26 November 2008. There were some who were planning to come who cancelled at the last minute. But despite that the stakeholders in the IGF showed their strong commitment to the process by turning up in substantial numbers with the final attendance reaching 1280 and all categories of stakeholders well represented. This is important as this "voting with feet" under difficult circumstances is a measure of the value that the IGF process adds to the processes of Internet governance. Credit must also go to the Indian hosts who provided both the sense of assured security and warm hospitality that made this event not just possible but memorable.

The overall theme of this IGF was "Internet for All", a bold dream that asked whether the way the Internet is managed would be adequate for the day when several billion users with varying cultural and ethical predilections and language competencies become net users. In fact the title of the first session "Reaching the Next Billion" provoked the remark that this can be done by the market and that the real challenge for policy is after that. The theme inevitably raised questions not just about governance but also about what the universalized Internet would be used for.

The discussions in Hyderabad showed that Internet governance has to be approached from two ends. One is the technical end of standards and protocols and their adequacy in a rapidly expanding network. The other end is the use of the Internet for e-commerce, e-governance, e-education and so on. The IGF agenda is structured in terms of categories like critical internet resources, access, diversity, security and openness to occupy a middle ground that allows both net managers and net users to converse with one another on issues that concern both of them. This conversation has to move beyond technical questions into the realms of politics, economics, culture and society. That is why the forum has to engage not just with Internet specialists but with a wide range of stakeholders. The participation and nature of the conversation at Hyderabad showed that the IGF is moving in this direction, an impression further reinforced by the side events and the exhibition at the forum site.

The Hyderabad meeting also marked a progression in the way the forum facilitates dialogue. There was clear separation between the contribution from structured panels of experts, which took place in the morning, and the open and less structured dialogue in the afternoon. This gave much more time to all participants to contribute to the conversation. In the middle ground that IGF occupies everyone, including a novice net-user, is an "expert" and has something valuable to contribute to its process.

The IGF meets within the framework of the United Nations. But because of its multi-stakeholder structure and more informal mode of debate, it requires all

stakeholders to depart a little from the culture of debate they are used to in their more exclusive forums. Over the three years of its existence some of this reorientation has taken place – governments have become used to the absence of set-piece statements, NGOs have learnt to restrain their remarks on individual stakeholders, businesses have accepted the value of a forum that has no decision making powers and the internet management community has come to appreciate a conversation that is more political than technical.

At Hyderabad, as at the earlier IGFs, one question which many participants will have asked is : What I am taking away from here which will improve my capacity to perform my tasks? Part of the answer lies in a better understanding of challenges and available options for the management of critical internet resources or for access, diversity security and openness. Part of the answer is in a better appreciation of the point of view of stakeholders who one may not meet in the normal course. But clearly some participants want to move beyond this to concrete acts of cooperation and that has led to the formation of many “dynamic coalitions”, voluntary groupings of participants, spawned at IGF, for specific actions suggested by the dialogue at the IGF.

The Internet Governance Forum is still “work-in-progress”. It is cooperative endeavour which involves all the stakeholders who participate in the Multi-stakeholder Advisory Group (MAG), the open consultation that are held when the MAG meets and of course the IGF itself. The meeting at Hyderabad depended even more than earlier IGF meetings on the time and dedication that individual stakeholders, particularly the MAG members provide for assisting the small secretariat so ably headed by Markus Kummer. We owe a special word of thanks to these individuals without whom this unique experiment in global governance would not be possible.

Editor's Introduction- Don MacLean

Editorial Approach

Editing the proceedings of the Hyderabad IGF was a challenge for a number of reasons. The transcripts of the main sessions ran to more than 400 pages. The reports of workshops, best practice forums, open forums and dynamic coalition meetings added another 200 pages. About 40% of this material had to be cut to produce a volume that would also include commentaries on the Forum itself, as well as highlights from the preparatory process that preceded it and the stock-taking meetings that followed.

The main editorial challenge was to retain the essence of the discussions that took place at Hyderabad, while almost halving the volume of its written record. Editing the different forms of oral expression recorded in the transcripts of the open sessions into conventional written text was another significant challenge. Less demanding but nonetheless important was the challenge of giving consistent editorial treatment to the reports submitted by organizers of workshops, forums and dynamic coalitions.

These challenges pale in comparison to those faced previously by Avri Doria and Wolfgang Kleinwächter. In preparing *Internet Governance Forum: The First Two Years*, they managed to compress the records of both the Athens and Rio IGFs into a single volume similar in size to the Hyderabad proceedings. I benefited greatly from their advice and generally followed the editorial practices they established, adapting them to the evolution of the IGF where it seemed useful to do so. I would like to thank Avri and Wolfgang for their support, and for making my task much easier than it would have been without their pioneering work.

The Hyderabad proceedings reflect the following editorial approach.

- There are different ways the proceedings could have been structured – chronologically; by theme; or by type of event. A hybrid approach was adopted. The bulk of the material is presented thematically, under headings reflecting the four main issue areas of the Hyderabad IGF – access; cyber-security and trust; critical Internet resources; and next steps, including emerging issues, stock-taking and the way forward. Documents related to each of these themes are presented so as to proceed from the general to the specific, beginning with extracts from the Chairman's report, then moving on to extracts from transcripts of panel discussions and open dialogues, and finally concluding with reports of relevant workshops, best practice forums, open forums and dynamic coalition meetings. This nested approach is intended to facilitate access to what the IGF has said and done in relation to the main issues on its agenda. It is also intended to help readers assess the value added by the IGF to international discussion and debate about issues of Internet governance.
- The thematic presentation of the main parts of the proceedings is complemented

by chronological “bookends.” These sections contain transcripts of the Hyderabad opening and closing ceremonies. They also include extracts from the September 2008 MAG meeting that finalized the agenda and format of the Hyderabad IGF; the February 2009 open consultation that discussed its results; and extracts from the report assessing progress made by the IGF in its first three years, which was submitted by the UN Secretary-General to the May 2009 meeting of the UN Committee on Science and Technology for Development. This latter material is included to help give readers a sense of how the IGF process works as a whole, as well as a feeling for some of the issues that may be considered in the formal IGF review process.

- Transcripts of panel discussions and open dialogues have been edited to make them easier to read by breaking long blocks of text into paragraphs; converting “stream of consciousness” interventions into grammatical sentences; and eliminating various forms of redundancy, including speaker introductions, expressions of thanks, repetitions of points, recapitulations of things that had been said previously, and summaries of what had taken place elsewhere. In addition, interventions that did not relate to the topic being discussed were dropped. The goal in all of this was to preserve the flavor and flow of discussion and debate, while making it more easily accessible to readers.
- The practice of identifying all interventions from parties other than chairs, panelists and moderators as being simply “from the floor” has been maintained. In spite of the best efforts of the highly skilled people who do real-time transcription of IGF proceedings, it is not always possible to fully or accurately record the names of those who intervene from the floor. It may also be easier to capture the names of some IGF participants than others – for example, those who are already well-known in the Internet governance community, or who have served as chairs, panelists or moderators in other sessions. For these reasons, the words of all those who intervened from the floor have been allowed to speak for themselves.
- In general, reports prepared by organizers of workshops, best practice forums, open forums and dynamic coalition meetings followed guidelines given by the Secretariat, and were included as submitted with only minor editorial revisions. Exceptions were made in two kinds of cases. Some reports contained substantial amounts of background information, annexes and references. These types of material were compressed or dropped altogether, in order to help readers focus on what actually took place at Hyderabad in relation to the subject of the event. Other reports, which appeared to be transcriptions of notes taken during events with little or no additional value added, were not included in the proceedings.

Many participants in the Hyderabad IGF expressed their sorrow at the tragic events that took place in Mumbai shortly before the meeting and offered their condolences to the people of India. In this edited version of the proceedings, the words spoken during the opening and closing ceremonies are intended to represent the thoughts and feelings that were clearly shared by all participants. On this subject, as on all others, the full record of what was said is available online at the IGF Web site.

Observations on the Proceedings

The experience of reading and editing all of the written outputs of the Hyderabad IGF has given rise to a number of observations that may be useful to share, since few readers are likely to repeat the exercise.

A first set of observations concerns the structure of the main sessions at the Hyderabad IGF, which differed from those of its predecessors in the way issues were organized, presented and discussed.

- At Athens, issues were organized under four main themes – openness, security, diversity and access. These were re-ordered at Rio and a fifth theme of critical Internet resources was added. At both events, issues were presented by relatively large numbers of panelists and discussants, and professional journalists generally served as moderators of main sessions.
- A number of changes were made at Hyderabad. The thematic structure used to organize issues was simplified and focused – on the role of access and multilingualism in “reaching the next billion;” the competing claims of security, privacy and openness in relation to issues such as child pornography and protection; the transition to IPv6 and the architecture of global, regional and national governance arrangements as key issues in the management of critical Internet resources; and the implications of the 2008 financial crisis and ongoing environmental challenges as important emerging issues. The number of panelists in main sessions was reduced, allowing issues to be presented in greater depth. Open dialogue sessions were added to expand the time available for interaction. Subject matter experts were asked to moderate some sessions, to help ensure that discussions were directly related to current issues of policy and practice.

These changes represent important steps in the evolution of the IGF. They suggest that the Forum is moving forward from being an event that simply allows Internet governance stakeholders to assemble in one place and talk about a wide range of issues of common concern, towards becoming an effective forum for multistakeholder dialogue, debate and cooperative action on the most important Internet governance facing the international community.

The continuing evolution of the IGF in this direction is only likely to be possible if, over time, the IGF continues to develop processes and structures that do the following kinds of things:

- identify existing issues of priority concern to IGF stakeholders, as well as emerging issues likely to become priorities in the future
- increase the capacity of all IGF participants to understand these issues in depth and to assess what is at stake for different players in the Internet governance game
- enable productive discussion of these issues and engage cooperative action among stakeholders at all relevant levels from local to global – not just at the

annual IGF meeting, but in response to external opportunities and challenges as they arise.

A second observation is that pursuing this kind of evolutionary path requires the IGF to do more than continue to improve the structure of its main sessions. It also needs to deepen the quality of its engagement with Internet governance issues and stakeholders.

Certainly, there are things that could be done to build on the progress already made. The idea of developing different kinds of structures to organize different kinds of discussions about different kinds of issues, according to their degree of IGF maturity, appears to have considerable merit. In this concept, expert panels could be used to present emerging issues that are not well understood by all IGF participants; debate formats could be used to address issues that are well understood but contentious; and practitioner roundtables could be used to explore options for dealing with issues where there is consensus on what needs to be done, but uncertainty about how best to do it. This idea appeared to be generally supported during the stock-taking sessions at Hyderabad and during the February 2009 open consultations. Although it has not been retained for the 2009 Sharm El Sheikh IGF, it may merit reconsideration in the future.

Whatever further improvements can be made to the structure of main sessions, the principal tools for deepening the IGF clearly lie elsewhere. In this regard, there were important developments at Hyderabad that should help enhance the IGF's capacity to identify priorities, develop common understandings of issues and stakes, enable productive discussion and engage cooperative action among stakeholders.

- The IGF events that take place outside the main sessions – workshops, best practice forums, open forums and dynamic coalition meetings – so far have been the principal means of deepening the IGF. They allow more detailed examination of specific issues than is possible in main sessions, and help extend the IGF's influence beyond the annual meeting through their preparatory processes and follow-up activities. In both respects, Hyderabad marked an advance. More such events took place than at Rio or Athens. More importantly, a much larger number of written reports was submitted, thereby making the results of these events accessible not only to ICT participants who were not present, but also to the world outside the IGF. There are of course logistical limits to the number of events that can take place at any IGF. There are also important questions about the principles that should guide the preparation of event proposals, the process for determining which proposals will be accepted and the conduct of events themselves. It would be helpful if these questions could be resolved in line with the kinds of overall objectives for deepening the IGF proposed above. This would help ensure that the evolutionary paths of the Forum's main sessions and other events are consistent, coherent and mutually reinforcing.
- As well as continuing to develop the scale, scope and productivity of the IGF events program, the Hyderabad forum was marked by the emergence of an important new dimension in the work that is going on worldwide on issues of

Internet governance – the bottom-up creation, in true Internet style, of regional and national IGFs. At the national level, some of these bodies have existed for some time and practiced multistakeholder Internet governance without necessarily calling themselves national IGFs (for example, in the case of Brazil). Others are newly-minted and proudly fly the IGF flag (for example, in the case of the United Kingdom). At the regional level, the initial impetus for creating these bodies may have been to help countries prepare for the global IGF. However, attention is beginning to turn to the role these bodies can play in Internet governance within the region, apart from whatever contributions they make to the global IGF (for example, in the case of Europe and East Africa). The spread of national and regional IGFs, and their potential involvement in national and regional Internet governance issues, is a significant event that has the potential to deepen the activities of the global IGF and extend its influence in ways that would be difficult, if not impossible to achieve by other means.

Hyderabad laid the foundations for enhancing the effectiveness of the IGF with respect to vertical issues, through more focused main sessions, an expanded program of other events and emerging linkages with national and regional IGF bodies. However, a final observation is that Hyderabad did not make similar advances with respect to important horizontal issues that have been on the IGF agenda from the beginning but which, it is generally agreed, have not been fully or successfully addressed – the related issues of sustainable development and capacity-building.

The solution to this problem may be to mainstream these issues, so that they are treated as integral elements of every vertical issue placed on the IGF agenda, instead of continuing to treat them as overarching issues that are always present in the room, but only occasionally take their place at the centre of discussion. This approach might help accelerate the development of national and regional IGFs, reinforce links across regions and maintain a global perspective on Internet governance issues that either require, or would benefit from, enhanced, global, multistakeholder cooperation.

Don MacLean

Ottawa, July 2009

Preface

Extracts from “Program, Agenda and Format of the Hyderabad Meeting,” 25 September 2008

This paper describes the programme, agenda and format of the third IGF meeting, which is to take place in Hyderabad on 3 – 6 December 2008. The paper was produced as a rolling document and has been updated regularly based on contributions, open consultations and Multistakeholder Advisory Group (MAG) meetings. Specifically, the paper reflects the contributions received during the planning for IGF2008 and incorporates relevant content from the open consultations held on 26 February, 13 May and 16 September. It also contains the results of the Multistakeholder Advisory Group (MAG) meetings held on 27-28 February, 14-15 May and 17-18 September.

Agenda

The overall theme planned for the Hyderabad meeting is “Internet for All.”

The specific themes planned for the agenda are the following:

- Reaching the Next Billion
- Promoting Cyber-security and Trust
- Managing Critical Internet Resources
- Emerging Issues
- Taking Stock and the Way Forward

Basic structure for the Hyderabad meeting

The proposed meeting structure builds on the Athens and Rio meetings. As was the case in Rio de Janeiro, the Hyderabad meeting will not be merely repeating the structure of the inaugural meeting, but will have its own character and will go beyond the formats used previously. The informal, interactive multistakeholder format was generally seen as one of the key factors for the success of the first two meetings and will be maintained and reinforced as a guiding principle. Participation will follow the format used at the previous meetings and all entities and persons with proven expertise and experience in matters related to Internet governance may apply to register as participants.

The basic format of the previous meetings, with main sessions and workshops, has been maintained. The main sessions of IGF 2008 will be of two types: Panel Discussions and Open Dialogues. The plan for IGF 2008 also includes a tighter linkage between the workshops and the main sessions. The ground for each of the

thematic threads should be prepared by Panel Discussions and by the workshops in each of the themes. There will be two Panel Discussions in the morning of the first three days dealing with each of the sub-themes under the main threads. They will be of 90 minutes' duration.

The Open Dialogues, of three hours' duration, will be held in the afternoon of the first three days. There will be no panellists. The dialogues will be moderated. Both the Panel Discussions and the Open Dialogues will be held in the main session hall, benefiting from interpretation and real-time transcription.

In addition to the main sessions, there will be workshops, best practice forums, open forums and meetings of the Dynamic Coalitions.

The following principles were established for the Hyderabad meeting:

- Workshops on other themes will be scheduled in parallel to the Panel Discussions and Open Dialogues.
- All organizers of official events (workshops, best practices, etc..) are asked to commit themselves to submitting a report on their event. Non-submission of a report will disqualify the organizer from scheduling an event for the following year.
- Scheduling preference will be given in 2008 to those who did submit a report for their events in 2007.
- Dynamic Coalitions should only be scheduled if they have submitted activity reports for 2008.
- Discussion is ongoing on a method for scheduling a reporting-back session, though it is unlikely that daily reporting-back session will be scheduled.
- No official events will be scheduled to start after 1800 hours.
- No official events will be held during the lunch-break between 1300 and 1400 hours.
- Further efforts will be made to enable effective and interactive remote participation.

The objective of the program is to maximize the opportunity of open dialogue and the exchange of ideas; to try and create feedback loops between the different types of sessions; to create opportunities to share best practices and experiences; to listen, debate and learn as well as to identify key themes that would, in the future, benefit from the multistakeholder perspective of the IGF.

There should be no prepared statements read out during the main sessions. However, prepared statements will be recorded in a specially equipped A-V studio and shown in a loop in selected areas of the conference venue as well as made available on the IGF Web site. Efforts will be made to improve the promotion of this possibility. Prepared statements can be recorded and submitted in advance to the IGF Secretariat.

Meeting types

1. Main Sessions

All of the main sessions, the Panel Discussions and the Open Dialogues, will take place in the main meeting hall and they will be organized around the focal themes. In addition, there will be an opening and a closing ceremony in the same meeting hall. Interpretation will be provided in all the six UN languages (Arabic, Chinese, English, French, Russian and Spanish) for all meetings taking place in the main hall. The Main Sessions will be Web cast and will be rendered in real-time transcription. Remote participants will be able to submit questions and comments by email.

Duration of all the main sessions will be three hours. In the case of the Panel Discussions, each will be allocated half of the meeting time, that is 90 minutes, without a scheduled break except for the minimum time necessary to change panellists between the two discussions.

(a) Panel Discussions

The Panel Discussions will be scheduled before the Open Dialogues on the same theme, thereby allowing the input to be fed into the dialogue. The Panel Discussions will be held in the morning of each day, except on the last day. The Panel Discussions are the result of some workshop mergers. They will be prepared in cooperation with the MAG and the proponents of the original workshop as well as other relevant institutions, as appropriate. The Panel Discussions will be supported/facilitated by the MAG and IGF Secretariat in cooperation with the sponsors of the workshop. One of the key considerations in choosing Panel Discussions as well as individual workshops was the multistakeholder approach and the need to present different perspectives on the issues under discussion.

(b) Open Dialogue sessions

The afternoon main sessions are planned as participant dialogues. The dialogues will be introduced by a brief presentation, arranged by the IGF secretariat, outlining the content of the morning workshops. The Open Dialogues will be moderated. The Dialogues will have neither panellists nor designated respondents but will have a chairperson and a moderator to lead and stimulate the discussion. The goal of these debates will be to bring as many participants into the dialogue as is possible and will allow for a discussion with maximum interaction among the participants.

(c) Other sessions

On the fourth day, one session will be devoted to "Emerging Issues" and another session devoted to "Taking Stock and the Way Forward."

2. Workshops

Workshops are designed to explore detailed issues related to the main themes. As such, all interested stakeholders were invited to submit proposals for workshops in a similar way as was done for the previous meetings of the IGF. To the extent possible, workshops that relate to the topics of the Open Dialogues will be scheduled prior to the relevant session.

The scheduling of these workshops will be determined by the IGF Secretariat on the basis of maintaining a balance across the issues, efficient use of meeting space and an attempt to avoid conflicts in topic or speakers.

3. Open Forums

All major organizations dealing with Internet governance-related issues will be given a slot, at their request, to hold an open forum in order to present and discuss their activities. The meetings should focus on the organization's activities during the past 12 months and allow sufficient time for questions and discussions.

4. Best Practice Forums

The aim of these sessions is to demonstrate, in a multistakeholder environment, some of the best practices that have been adopted with regard to the key IGF themes in general and to the development and deployment of the Internet in particular. The sessions can have either a thematic or a country focus. The presentations will be based on a common template. Presentations should not only cover practices that were successful, but also focus on challenges and mistakes. Thus, "lessons learned" would be an important output of these sessions. They will be moderated by independent experts/hosts and participants will be given the opportunity to ask questions and make comments. The aim is to provide a space to discuss what constitutes a "best practice" and share relevant information that can be transferred to other situations and strengthen capacity-building activities.

5. Dynamic Coalitions

The meeting will provide space for active Dynamic Coalitions to meet and further develop their proposals. Only Dynamic Coalitions that have submitted a report of their activities for 2008 will be scheduled for a meeting slot. All Dynamic Coalitions are requested to present a report on their achievements so far in general and on their activities since the Rio meeting in particular. The reports will be posted on the IGF Web site.

6. Other Meetings

In general, meeting rooms that are not otherwise booked will be given, as available, to interested stakeholder groups on a first-come-first-served basis, in accordance with United Nations procedures and practice. A number of rooms will be reserved to accommodate ad-hoc requests.

Setting the Scene

Opening Ceremony, 3 December 2008

Speakers

Mr. Jomo Kwame Sundaram, Assistant Secretary-General for Economic and Social Affairs (UNDESA)

Mr. Nitin Desai, Special Adviser to the Secretary-General for Internet Governance and Chairman of the Multistakeholder Advisory Group (MAG)

H.E. Mr. Damodar Reddy, Minister for IT, Government of Andhra Pradesh

H.E. Mr. Thiru Andimuthu Raja, Union Cabinet Minister for Communications & Information Technology, Government of India

Extracts from the Transcript of Proceedings

MARKUS KUMMER:

I am now honored to ask Mr. Jomo Kwame Sundaram to address the audience on behalf of the Secretary-General of the United Nations.

MR. JOMO KWAME SUNDARAM:

Excellencies, ladies and gentlemen, first of all, on behalf of the Secretary-General, I would like to express my condolences to the families of the victims of the terrorist attacks in Mumbai.

I ask all of you to stand up and commemorate the victims.

Please be seated. Thank you very much.

I would like to express my gratitude to all of who you are with us in Hyderabad today in solidarity with the people and government of India. I am delighted to be here with you in Hyderabad. My deep thanks go to the government of India for hosting the third meeting of the Internet Governance Forum.

India is a very appropriate venue for this meeting. In the words of the Under-Secretary-General for Economic and Social Affairs, India provides a practical example of how tremendous economic growth can be achieved through harnessing the tools which the Internet has placed at our disposal. Here, in India's silicon plateau, we see it firsthand, how well the savvy application of information and communication technologies has accelerated the nation's development.

The Internet has become the backbone of our globalized world. Today some 1.5 billion people use the Internet. That total has grown by half a billion people since the IGF held its first meeting in Athens two years ago. Since the year 2000, the total number of Internet users has grown at an annual rate of nearly 15%, and that growth has been accelerating.

The Internet is transforming our lives and so it behooves us all to take an interest in how it is run and managed. That is very much the spirit of the Internet Governance Forum, created by the World Summit on the Information Society in the year 2005 with an initial mandate of five years.

The forum brings together all major stakeholder groups – governments, the private sector, civil society, and the academic and technical communities – to debate on an equal footing Internet governance and related public-policy issues, exchange information, as well as share good practices.

The IGF is not a new organization or agency, and rather than being a decision-making body, the IGF is a space, a platform, for frank and enlightened debate. The forum provides a unique opportunity for all stakeholders to foster innovative dialogue under the auspices of the United Nations.

The forum shapes and informs the decision-making processes of other institutions and governments and prepares the ground for negotiations that will take place in intergovernmental as well as other forums.

The forum is a place to launch ideas, trial balloons, perhaps, that can serve as the basis of broader agreement on concrete ways and means to shape and govern the Internet. It fosters dynamic coalitions through which ideas can gather strength and support to influence policy outcomes related to the Internet. Such dynamic coalitions already include valuable initiatives on issues such as the Internet's impact on climate change, child safety, freedom of expression, an Internet bill of rights, access to knowledge, accessibility in remote areas, and linguistic diversity.

Around the world, multistakeholder coalitions, woven together by the Internet, have been dramatically sowing the course of political outcomes, not least of elections. The forum can certainly do the same for governance of the Internet.

The evolution of the IGF, from the first meeting held in Athens in the year 2006, to the second meeting in Rio de Janeiro in 2007, to the present meeting in Hyderabad, has shown that the IGF has become a valuable melting pot for forging a common understanding of complex Internet issues from diverse points of view.

The year 2010 will represent a turning point for the forum, when the General Assembly will decide on whether or not to extend the initial five-year mandate of the IGF, based on the review of its work as well as its achievements. It is now time to reflect on how this review process should be conducted.

The session this week on taking stock of the work of the IGF so far and suggesting the way forward will provide the first opportunity for an exchange of ideas. As a result of this consultative review process, the Secretary-General will make his recommendations to enable the General Assembly to take a decision on the IGF at its session in the year 2010.

Whatever may happen after that year – and the ultimate decision on the future of the IGF belongs to the member states – it is my pleasure to announce that we already have a host country and a venue for the 2010 meeting. The 2010 meeting

will take place in Vilnius, capital of Lithuania. I would like to thank the government of Lithuania for its generous offer, and at the same time, express my gratitude to the government of Azerbaijan, which has also made a bid for the 2010 meeting. Allow me to encourage the government of Azerbaijan to make a new bid, should the IGF mandate be extended.

This year's meeting program shows once again a wide variety of events with multistakeholder involvement. The overall theme, "Internet for All," points the way to the future. We are not there yet, but we are on the way to a not-too-distant future when the next billion people will have access to the Internet. Providing access alone, however, is not enough. The access needs to take into account the diversity of the world's population, the diversity of languages, but also the diversity of people of different abilities. To provide access to people with disabilities is a strong focus of this year's meeting, and rightly so. A society is evaluated by how it deals with its weakest members. That also applies to the Internet.

The dramatic growth of the Internet, whose total of worldwide users has tripled from half a billion people in the year 2000 to nearly a billion and a half people in the year 2008, masks tremendous interregional and national inequalities in usage that make up the digital divide. Some 39.5% of all users are now in Asia, although the continent is home to 66% of the world's population; some 26.3% of users reside in Europe, which has 12% of the world's population; and 17% in North America, with 5% of the world's population. However, Africa, with 14% of the world's population, has only 3.5% of its users. Clearly, the IGF has much work ahead of it in terms of suggesting further ways to bridge the digital divide, particularly through dynamic coalitions to foster an inclusive governance and evolution of the Internet.

The IGF will continue to accompany the evolution of the Internet. It will certainly provide useful counsel to decision-makers and policymakers on the further deployment and equitable development of the Internet and how best to use it, while coping with abuse as well as threats to its security.

Furthermore, the IGF will both build bridges between the various actors involved and deepen the understanding of how the Internet works and is governed.

I wish you all a productive and successful meeting, and look forward to the IGF review process. I trust you will all engage actively in this process and let us know your views on the IGF as a worthwhile experiment in multistakeholder cooperation.

MARKUS KUMMER:

The next speaker is Mr. Nitin Desai, Special Advisor to the Secretary-General for Internet Governance and Chairman of the Multistakeholder Advisory Group.

MR. NITIN DESAI:

Chairman, Mr. Raja, Minister Damodar Reddy, Assistant Secretary-General Jomo, and my friends on the dais, it's a pleasure for me to be here at this third IGF. And I would also echo the sentiments expressed by Assistant Secretary-General Jomo on

behalf of the UN condemning barbaric acts of terrorism which took place in Mumbai a few days ago.

The third IGF is a rather special event for me because I'm here as the Special Advisor to the UN, but I happen to be a national of this country, so it's a particular pleasure for me to welcome you all to Hyderabad, this wonderful city, to thank my government for the wonderful efforts that it has put in to make this meeting a success.

Let me just repeat two points which I have been making earlier for this audience.

First, that the origins of this dialogue on Internet governance do not lie in any unhappiness with the way in which the Internet has been managed in the past. After all, we are users and we are all fairly effective users of the Internet. We believe that it runs reasonably well. The real challenge for Internet governance which has led to the formation of this forum is the future.

A piece of infrastructure which arose essentially as a form of cooperation between scientists is today much more than that. It is central to the economy. It is central to politics, it is central to society, with all of these social networking sites. Incidentally, I should mention that when the events happened in Mumbai, the blogs and the social networking sites played a major role in keeping people informed.

It's also different in terms of where it is expanding. Much of the expansion is taking place in developing countries, in countries where English is not a language of choice, where Latin is not the preferred script. And that is why I would urge you to see this more in terms of the challenges of the future.

It's for this reason that we framed the slogan of this meeting as "Internet for All." As somebody pointed out today quite correctly, this does not mean you worry just about the next billion, because the next billion the market will take care of. You should start worrying about the last billion, the people who you have to reach who will not be reached by the market.

That day of reaching everybody with the Internet may come sooner than we think with the spread of mobile phone technology and the possibilities of the voice web. It's for that reason that the focus of this meeting is so much on the whole idea of this Internet of the future. What is it going to be like? What will it be like when everybody has access to the Internet? Will our present systems of managing the Internet and the governance structure at every level, global, national, will it work?

This third IGF has learned some lessons from the earlier IGFs, the two that we had in Athens and Rio, and some changes have been made in the way in which it has been structured. We begin each day with a series of panel discussions on the themes for the day, and then we have an afternoon of open dialogue. The open dialogue is for everybody. There are no set speakers in the open dialogue. The whole idea there is to encourage a conversation.

The Internet itself is a bottom-up process. And we must make this IGF also a process like that so that everybody who is here feels that in some form they

contributed to the outcome of this meeting, not an outcome in the formal sense, but an outcome in terms of what, individually, people take away from here. So I would urge you to participate fully. And most important of all, on the last day, we will have a session on taking stock and looking ahead. I would like to you participate in that and give us your candid views on how well this new structure worked.

I mention this because, in many ways, this IGF is a forum which is very different from the usual UN meetings. In many ways, the IGF is a multistakeholder forum, multistakeholder in the sense that governments, the corporate sector, civil society, the Internet technical community, academics, researchers, all are here on an equal footing. There are no privileged participants here. The group which organizes this IGF, which I have the privilege of chairing, what we call the Multistakeholder Advisory Group, also has all of these elements represented in it. And I want to take this opportunity of thanking all of the members of the Multistakeholder Advisory Group, who give of their time voluntarily in the effort, the very great effort, that goes into organizing this meeting and assisting the secretariat so ably headed by Markus Kummer.

I mentioned many stakeholders. But underlying this, essentially, is a dialogue between two groups of people. On the one hand, we have a group of people who feel that the present modalities of management of the Internet are working, will work in the future, and who are afraid that any major change in the way in which these arrangements are set up would compromise the Internet in some form. On the other hand, we have a lot of people who are dependent on the Internet for their economic, social, and political activities, who feel that they have to have a say in the public policy issues which affect how the Net runs. These are essentially the two groups who are in dialogue here. And the purpose of the IGF is to get these two groups who do not normally meet in the various fora that we have to come together and listen to each other. I think we have succeeded in Athens and in Rio, and I believe we will succeed here also.

My friends, you will forgive me if I continue with my running metaphor, which perhaps is very appropriate with this audience. I described this sort of encounter between people in these groups a bit like the way we arrange marriages in our country. I described the first meeting in Athens as one where it's the first meeting between the boy and the girl. They are scoping each other out, finding out whether it's really worth pursuing the dialogue further or not. And they came to the conclusion that yes, it is. The second meeting, in Rio, they continued the dialogue and we started talking about difficult things, like critical Internet resources. Again they found, yes, it's working. It's useful. It's constructive. And, therefore, all of these people have also turned up here for the third meeting. But like in every meeting when we arrange a marriage, you always expect some little further progress at every session. So let's ask ourselves, what is it that the boy and the girl are going to do this time? Just hold hands? Maybe go a little bit further? Certainly the parents, who have encouraged these two to meet, are now looking for some answers. And I think we should start thinking about these answers as we move ahead.

So this is the challenge that we have for this meeting – to continue the dialogue of trust and confidence that has been engendered by this process, as well as the forms of voluntary cooperation which Mr. Jomo mentioned, in the form of the dynamic coalitions, the learning which takes place in the panel discussions and the workshops, and to really see that at the end of this, we go away with a sense of having gotten something out of this which will allow us as users, as service providers, as managers of the Internet, to do our job a little bit better. This is my hope. And I look forward to the deliberations of this meeting.

MARKUS KUMMER:

The next speaker is His Excellency, Mr. Damodar Reddy, Minister for Information Technology, Government of Andhra Pradesh.

MR. DAMODAR REDDY:

It is my great privilege to be with all of you in the opening ceremony of the third meeting of the Internet Governance Forum here in the pearl city of Hyderabad. I am glad to know that, having organized the previous two meetings of Brazil and Athens, the UN has selected India as the host country and Hyderabad as the venue for holding this meeting through the Ministry of Information Technology, Government of India. I thank the Secretary-General of the UN for this. It is great that 1200 delegates from over 70 UN member countries are here, and I extend a warm welcome to one and all for their comfortable deliberations during these four days.

The remarkable good of information technology and Internet has transformed business, commerce, economic activities, education, health care, entertainment and other services. I understand the IGF during this meeting has the mandate for discussing public policy issues relating to key elements of Internet governance in order to foster the sustainability, robustness, security, stability, and development of the Internet. I hope the IGF will focus on issues like the challenge of universal and equitable access to Internet for all and for the benefits of the common man and people living in the remote, rural areas.

Andhra Pradesh is a state that provides the right climate for the growth of IT business and is now one of the most preferred destinations in the country. Hyderabad is at present home for many IT, ITS, and Fortune 500 companies. The IT sector in our state has been performing excellently. The contribution from the state in the IT exports went from 8.62% in 2003 and 2004, to 15% in 2007/2008. In 2007/2008, the state has recorded a growth rate of 41%, with exports of over 5.2 billion US dollars. To meet this requirement, the state government has erected the strategy of promotion of individual satellite IT townships in various places. Keeping this in view, the state is encouraging setting up of IT ITS special economic zones in various parts of the state by private developments. Further, we are also planning to set up an information technology infrastructure region for promotion and growth of the IT clusters in a planned manner.

Though Internet is used by more than 1.4 billion people, it is not accessible to 78 percent of all population at present. I therefore fully agree and endorse the theme of this forum that is "Internet for All" and the significance of the meeting.

Our government is committed to improving the quality of life of the common man. By liberating ITS, which includes Internet also, our government plans to use IT and Internet to change the role of citizens. Business centers implemented with our government will provide multiple processes by using Internet technologies to people living in the remote areas. This forum is to discuss in detail how the Internet can be of more use to the regions and the farmers in the countryside and be in effect a tool to bridge the digital divide.

I wish all the delegates, officials from United Nations and other government institutions, from countries abroad and from India a pleasant and a comfortable stay in this historical city of Hyderabad. I'm sure all of you will enjoy Hyderabad with its rich tradition and culture, and you will enjoy your visit here. I wish the best for IGF to successfully conduct the discussions on the Internet for this forum.

MARKUS KUMMER:

The next speaker is His Excellency Minister Andimuthu Raja, Union Cabinet Minister for Communications and Information Technology of the Government of India.

H.E. MR. ANDIMUTHU RAJA:

Good afternoon. Welcome to the Third Internet Governance Forum.

At the outset, all of us stand connected to condemn the acts of terror that happened in Mumbai.

It is my pleasure to welcome you all to India and to this vibrant city of Hyderabad to attend this third meeting of the Internet Governance Forum. The Internet is the most revolutionary and significant invention of recent times. It has been the most effective instrument in connecting the globe and bringing progress all around. The government of India feels honored to host this third Internet Governance Forum. We are happy to welcome you all to this modern city with a rich heritage, a city now identified with technology as much as it is with culture and cuisine.

People from all over the world are here to discuss and exchange their views and experiences on policy issues relating to the Internet. This forum, organized by the United Nations, is a continuation of the two World Summits on the Information Society, held in Geneva and Tunis, where India was an active participant. The Internet can be an effective tool for strengthening the principles and executing the commitments of the Tunis Agenda, to build up an Information Society which is inclusive, human centered, and geared to development. Internet has tremendous potential for promoting global partnership for development as advocated in the Millennium Development Goals.

I am pleased to see this large gathering of all stakeholders. In a way, it testifies to the innovative character of the Internet. It has started enhancing the quality of our day-to-day activities and communications and also reshaping our way of thinking and social behavior.

Today we are in the global knowledge society. India's software and services industry has given India a formidable brand equity in the global market. ICT is the key enabler to move forward to bring about an equitable society in the country. In India, information technology and Internet development have made remarkable progress, thanks to strong public-private partnership.

The government of India recognized that provision of world class telecommunications and IT infrastructure is the key to rapid economic and social development of the country. The Indian telecom sector has achieved remarkable growth in the recent past. The efforts made by the industry, coupled with the proactive policies of the government, has fueled the growth of the telecom sector in a big way.

Now India has become the second largest wireless network in the world after China with over 300 million mobile connections. It also has a unique distinction of being the fastest growing telecom sector in the world with an addition of over 8 million subscribers every month on a sustainable basis. With this growth trajectory, we are poised to surpass our target of 500 million connections well before the year 2010.

We have also focused on introduction of modern tools with an emphasis on improving rural connectivity. For our society to grow quickly and for reaping the consequent economic opportunities, the spread of broadband has also been accorded the highest priority by the government. E-education, tele-medicine , e-governance are all part of the government's vision for rural India. To achieve these objectives, we have set an ambitious target of providing 20 million broadband connections by 2010. This will include broadband connectivity to all Gram Panchayats, or village councils, all government higher secondary schools and coverage of all public health centers under the rural broadband project in a progressive manner.

In order to provide educational and other services and access through Internet, the government of India has embarked on a national e-governance plan to make available all government services to citizens through common service centers. Under the plan, 100,000 village Internet kiosks or common service centers will be set up that will provide access to 600,000 villages. Presently, over 20,000 such centers are already in place and we expect the rest of them to be operational by the second half of 2009. At the local government level, the services provided relate to road transport, land records, commercial taxes, employment exchanges, agriculture, civil supplies, treasuries, land registration, policy and education, while at the federal government level, they will cover areas such as insurance, central excise, national ID, pensions, e-posts, banking, passport, visa and income tax.

Government, through the National Knowledge Network, is setting up a high-speed digital broadband network with adequate capabilities and access speed to

encourage sharing of resources and collaborative research. The primary objective of the proposed integrated national knowledge network is to provide gigabit range broadband connectivity to all institutions of higher learning and research in the country.

India is a multilingual and multi-script country. There is, therefore, a need to provide user friendly and cost-effective tools, applications, and content that enable access to ICT infrastructure in Indian languages. The Department of IT is addressing issues relating to linguistic data resources, content creation, language processing tools and such technologies as optical character recognition, text-to-speech, speech recognition, cross-lingual information retrieval, and machine translation in a multi-lingual environment. To make available the fruits of IT development to the common man in all Indian languages, the department has launched a process of dedicating in a phased manner the tools and fonts for public use in Indian languages. As a step in this direction, software tools and fonts for ten Indian languages – namely, Hindi, Tamil, Telugu, Assamese, Kannada, Malayalam, Marathi, Oriya, Punjabi, and Urdu languages – were released in public domain for free use.

Information is considered a public resource, which is often collected and preserved by the government in trust for the benefit of the people. Access to information by the people not only helps in strengthening democracy by ensuring transparency and accountability in the functioning of the government but also enhances the quality of participation of the citizens in the governing process.

Without appropriate information, people cannot adequately exercise their rights as citizens or make informed choices. The Indian Parliament enacted the Right to Information Act in 2005 with a view to making the governance more transparent and accountable to the public. The act lays down a practical regime of right to information for citizens to ensure access to information under the control of public authorities, in order to promote transparency and accountability, in the working of every public authority. The act also stipulates the time limit within which the information sought has to be provided to an applicant with stiff penalties on individual officials for default or failure to provide the information sought.

The operational stability and security of critical information infrastructure is vital for the economic security of the country. The Information Technology Act 2000 was enacted primarily to create an enabling environment for e-governance and to boost e-commerce in the country. The act provides a legal framework for transactions carried out electronically, creating trust in the electronic environment. The IT Act amendment bill of 2006 was drafted, making new legislative provisions that address new types of cyber-crimes, strengthen the existing legal framework and cover various other issues.

May I urge all the distinguished delegates here as well as remote participants to promote cooperation and collaboration among ourselves to realize the WSIS mission of promoting a multilateral, multistakeholder, democratic and transparent Information Society.

I have the proud privilege to declare open this august assembly of world citizens.

MARKUS KUMMER:

Thank you, Minister Raja, for your statement. This concludes the statements of the opening ceremony of the third meeting of the IGF.

In accordance with the tradition of the Internet Governance Forum and on behalf of the IGF participants, I would now like to invite the Minister of the host country, His Excellency Thiru Andimuthu Raja, Union Cabinet Minister for Communications and Information Technology, to assume the chairmanship of the meeting by acclamation.

Opening Session, 3 December 2008

Chairman: Mr. Andimuthu Raja, Union Cabinet Minister for Communications and Information Technology, Government of India

Speakers:

- Mr. Jainder Singh, Secretary, Department of Information Technology, Ministry for Communications and Information Technology, Government of India
- Mr. Subramaniam Ramadorai, CEO and Managing Director, Tata Consultancy Services Ltd (TCS); Chairman, ICC/BASIS
- Ms. Lynn St. Amour, CEO, Internet Society (ISOC)
- Ms. Alice Munyua, Coordinator, Kenya ICT Action Network (KICTANet), and Director, Communications Commission of Kenya (CCK)
- Mr. Abdul Waheed Khan, Assistant Director-General, United Nations Educational, Scientific and Cultural Organization (UNESCO)
- Ms. Meredith Attwell Baker, Acting Assistant Secretary of Commerce for Communications and Information, and National Telecommunications and Information Administration Administrator, United States of America
- Mr. Paul Twomey, CEO and President, Internet Corporation for Assigned Names and Numbers (ICANN)
- Ms. Graciela Selaimen, Executive Coordinator, Núcleo de Pesquisas, Estudos e Formação da Rits (Nupef/Rits)
- Mr. Hamadoun Touré, Secretary-General, International Telecommunication Union (ITU)

Extracts from the Transcript of Proceedings

CHAIRMAN RAJA:

Excellencies, ladies and gentlemen, now we will proceed with the opening session.

The first speaker will be Mr. Jainder Singh, Secretary, Department of Information Technology, Government of India.

JAINDER SINGH:

The exponential growth of information technology and the Internet has transformed our lives. However, such modern progress requires access to the Internet. The theme of the IGF at Hyderabad is "Internet for All" and reaching the next billion is the immediate target that we have set ourselves. The growth towards the next

billion will primarily be driven by countries in Asia, Africa and Latin America. The Internet is today creating a global village with free democratic and inclusive development. The Internet is a means through which we can bring about economic and social changes in nations across the globe.

The IGF is perceived as an open, transparent and inclusive forum for multilateral, multistakeholder dialogue on issues regarding the Internet, its governance and its operational and management principles. India is proud to host this third IGF with the central theme of "Internet for All." The important fact that is recognized is that five billion people remain without access to the Internet. The digital divide must be bridged, and it must be bridged quickly.

ICTs are a fundamental element of an emerging global knowledge society. They may lead to greater opportunities for those who can partake of them, but they may also lead to greater exclusion for those who cannot. I am sure that the IGF would provide an avenue to the next five billion to be brought into the mainstream of the global information society. Equitable and affordable access would offer them opportunities to shape their lives in a better manner. India is fully committed to carry forward and contribute to this global mission. There are several challenges which must be addressed in order to make the vision of a truly inclusive knowledge a reality.

Perhaps the first challenge to enabling a solution on such a large scale is to review the issues related to access: broadband access, access to technology, access to content. The underlying principle of inclusion is equity. And how do we define equity? Equity in our view has three dimensions. Is content available? Is it accessible? And is it affordable? The digital divide is conventionally talked about in the context of access to computing, access to the Internet. In a larger sense, this is true. But there is a further dimension. The material question from the perspective of the underprivileged is, do the poor and vulnerable have access to services mediated by ICT, especially the Internet? This is the question which we need to answer.

India, with a vast geographical area, has a variety of challenges in terms of low PC penetration and Internet access. The challenge is to resolve India's social and economic issues to create available technology for the provision of health, education and other services. It is appropriate that this meeting with the theme "Internet for All" is being held in India, both because of India's emergence as an ICT power and also because of the scope for growth of the Internet in this vast country.

India is poised to see a tremendous increase in Internet penetration. With its large and young population, the number of Internet users will grow very rapidly and would contribute significantly to the global expansion of the Internet. Today, more than one billion people are connected to the Internet. India's share at the moment is not commensurate with our population. But in the next billion connecting to the Net, we hope that 200 million will come from India.

To achieve Internet for all, there is a need to ensure participation of all linguistic groups in cyberspace. There is a growing concern that many languages are being

unintentionally ignored during the rapid growth of the Internet. All over the world, people need to access the Internet using their local languages. Only then the true potential of the Internet can be realized and there can be hope of reducing the digital divide.

In this context, Internationalized Domain Names also assume importance. The open nature of the Internet sets it apart. The Internet is underpinned by democratic values of openness and accessibility. Freedom of expression is a right which needs to be protected. India is an open society, and as a democratic nation, we support the principles of openness in the Internet domain.

The important matter of security will also be discussed in a number of sessions. The stakeholders in the Internet need to do more to promote Internet security. There is a greater need to exchange and make available data pertaining to criminal attacks, as well as technological solutions to resolve and prevent incidents. Securing cyberspace becomes a shared responsibility of all the stakeholders.

This IGF will also stress the importance of the inclusion of the world's 650 million people with disabilities. It would be our endeavor to adopt technological measures that provide equitable and easy access to people who are physically challenged. This IGF, I am sure, would not only reaffirm our commitment to this objective, but would also work out measures to be achieved to include persons with disabilities.

Ladies and gentlemen of the Internet community, let us all work together to expand the reach of the Internet in a way that benefits peoples around the world. Let us also hope that not only the Internet continues to grow at a fast pace, but it will unleash forces which bridge gaps between nations and economic classes.

CHAIRMAN RAJA:

Thank you, Mr. Singh. The next speaker is Mr. Subramaniam Ramadorai, CEO and managing director, Tata Consultancy Services, Limited.

SUBRAMANIAM RAMADORAI:

Earlier this year, I assumed responsibility as Chair of BASIS. Bringing global business experience to this event, BASIS draws together companies and associations from a wide range of sectors and geographies. I am involved in BASIS because of my conviction that as a major stakeholder, business has a fundamental role to play in continued global development of the Internet. I am sure that BASIS members will make significant contributions to discussions that will take place over the next four days.

It's both an exciting and a challenging time to embark on the Internet governance dialogues ahead of us. It's also particularly fitting that we are gathered here in India for the occasion. We are a country that is relying on technology to play an active role in economic and social development. India continues to embrace new technologies and leapfrog older technologies. Tata Consultancy Services has transformed existing business models in technology-based services. I am pleased

the success of my company is but one indication of the vibrancy of this sector in my home country.

Globally, thanks to the Internet, the world is witnessing the emergence of innovative new business models that are promoting an inclusive and global information society. Business continues to play a significant role in facilitating Internet access, thereby changing the life of the people it reaches. Take one example. Each year, ICC World Business and Development Awards recognize initiatives that contribute to the advancement of the Millennium Development Goals. This year, among the winning entries, there are several ICT and Internet initiatives. Projects varied in size and ambition from providing mobile banking services in Africa to raising awareness with grassroots communities of diseases such as AIDS and possible actions to combat them. My company also plays a role in bringing the positive impact of the Internet to bear upon communities. Our project, which brings the power of information and knowledge to rural farmers in India through the Internet and the cell phone, has been recognized as one of this year's most innovative users of technology by the *Wall Street Journal*.

Business is also helping create an enabling environment to help more people jump onto the Internet express by making significant contributions to skills development and human and institutional capacity-building. This is essential to bringing the benefits of the Internet to more people. And we don't do this exclusively for philanthropic reasons. It makes good business sense to help others access the Internet, as a well-educated workforce in turn ensures well-functioning organizations. And yet with all the benefits of the Internet has to offer, today, approximately 5 billion people across the globe still do not have access to it. So to create an even more inclusive, innovative and productive environment, what challenges do we face?

On one hand, lack of a dependable electricity source creates access problems for many in developing countries, especially those in rural areas. Since they do not have sufficiently reliable Internet access to manage the flow of data that is needed, people in remote areas have difficulty accessing useful and important information. We also need to look for cost-effective devices that enable everybody to become a netizen. In India and many other emerging economies, the cell phone, rather than the PC, seems to be the preferred mode of accessing the Internet.

On the other hand, those who already have Internet access face challenges that range from data and privacy protection to keeping our children safe from the Internet predators. I believe every step forward in Internet development brings with it new challenges that we all need to deliberate and discuss, while improving access to information and services. Convergence, for example, in all of its forms, raises new issues.

One thing that exists here in Hyderabad is our common desire to expand the benefits of the Internet to the next billion users, or the last billion users who should not be left behind. Internet governance requires the input of all stakeholders – business, governments, technical community, civil society – we must all work

together, listening, contributing, exchanging views, and best practices. This is how we learn from each other and build partnerships. We must discuss openly and candidly at the international level so that informed policy approaches can be implemented at the national and regional levels.

Business recognizes that technology alone cannot provide all the solutions. Likewise, no stakeholder can effectively address these issues alone. But the key driver remains the innovative and competitive nature of the private sector that has spurred innovation and the rapid Internet development we have seen today. Business knows that continued Internet development requires creativity and investments in infrastructures as well as competitive and open markets.

Tata has been working with the leading NGO to develop a system to help rural communities, even those that do not have any direct Internet access, to not only organize, use, and manage information, but, most importantly, to be able to share it amongst themselves quickly and easily. The ability to do this without Internet connectivity is a compelling motivator to bring more communities into the information fold. But the benefits increase dramatically if the village has Internet connectivity.

We all depend on informed policy-making, which results from working with all stakeholders to help create such environments in which innovation and investment can thrive. The global business view is important, because we have diverse experience and can help identify what has and has not worked and why it does or does not work from our perspectives. In the current economic climate, entrepreneurs and investors will look for more predictability and stability before investing time or money on Internet ventures. The private sector believes that the Internet can be a part of the solution to the current crisis. We have seen how competitive markets push prices down, and, in turn, enable those at the lower end of the income pyramid to be able to afford access to the Internet. When addressing Internet issues over the coming days, I urge you to consider how competition and economies of scale have facilitated Internet access around the world.

You must also strive to achieve security for our critical infrastructures and for Internet users alike. To protect data and privacy and prevent users falling victim to cyber-crime, we must continue building a culture of cyber-security. For us to do this, we need to understand what cyber-security means in practice and what role everyone has to play to protect data. This issue has become extremely critical with new forms of cyber-crime emerging each day from various parts of the globe. There are several sessions tomorrow on this critical subject. And I hope that all of you will contribute to develop new ideas and suggestions that can take the discussion to the next level.

Business can help devise new and better tools, products, solutions, and policies. I encourage you all to visit our booth in the global village. There, we will be happy to introduce you to a range of ICC and BASIS tool kits and policy guides, as well as discuss ways in which we can strengthen our ties.

The IGF is a valuable opportunity to discuss Internet governance issues together on an equal footing. I look forward to hearing the input of the other stakeholders during our time here. The experiences and views shared here are tangible and should be carefully considered by each of us in our efforts going forward. They will inform public policy and government development activities. They will help policymakers work with national stakeholders to shape an environment that suits their needs.

There is a proverb you may be familiar with: you can never step into the same river twice. A year has passed since we last met. Our experiences and circumstances have changed since Rio. We should allow our river to continue to run its course and help lead the way towards Egypt next year. I therefore urge each one of you to make every effort to build upon the discussions taken a year ago in Rio and to make this year's IGF a great success.

CHAIRMAN RAJA:

The next speaker is Ms. Lynn St. Amour.

LYNN ST. AMOUR:

The Internet Society is an independent, international, nonprofit, cost-based organization established in 1992 by two of the fathers of the Internet: Vint Cerf and Bob Kahn. We are dedicated to the stability, continuity and advancement of the Internet, not for its own sake but rather for the benefits the Internet can bring to all people.

We accomplish this by advancing critical Internet technologies and best practices, and by providing technical information, advice, and training programs. We have long been very active in capacity building activities that have helped many developing countries get online. Of equal importance, we promote national and international policies that support the expansion and evolution of the Internet throughout the world. We do all these things by partnering with a broad range of stakeholders, civil society, private sector, governments, and international organizations.

The Internet Society is also the organizational home for the groups responsible for Internet standards, including the Internet Engineering Task Force, the IETF, and the IAB. It has over 80 chapters around the world including two chapters here in India. We are located in Geneva, Switzerland, and Washington, D.C., with a distributed workforce in 12 countries, including Regional Bureaus in Africa, Latin America, and Asia.

We have been deeply involved throughout the World Summit on the Information Society and then the Internet Governance Forum. Our support of the IGF has been significant, including funding assistance and workshop and program development. But perhaps more importantly, the Internet Society has brought experts from diverse backgrounds and geographies with real on-the-ground experience to every IGF so that the discussion, the experience sharing, and the practical takeaways are all the richer.

Ladies and gentlemen, we are now at the midpoint of the IGF. The Internet Governance Forum has convened before on two occasions, and after this meeting, it is due to meet two more times. So as we stand at this midpoint, it is worth reflecting on what we have learned from this experience. By looking back at what we, as a community, have achieved, we can begin to consider our future path. But first let us remember where this journey began.

Before the IGF, there was the World Summit on the Information Society. It was an important series of events culminating in the Tunis meeting that called for the Internet Governance Forum. Yet, WSIS struggled with intergovernmental constraints. At times, accreditation, seating arrangements and formal submissions seemed to take prominence over substantive dialogue. Discussions of important issues often suffered from the lack of input from experts and affected stakeholders who were excluded by official protocols, questions of recognition, and other restrictions.

Fortunately, as WSIS evolved over its four-year life span, it became a learning experience for everyone. Governments began to learn the value of civil society, private sector, and the Internet community's contributions and non-government participants learned to work in a traditional intergovernmental environment. This became the basis of what we now refer to as multistakeholder engagement.

While WSIS itself was not a multistakeholder forum, one of its most significant outcomes was the multistakeholder IGF. We must recognize this as a very significant step forward from the normal UN and intergovernmental way of doing things. It has also proved a successful way of dealing with Internet issues. Some question the accomplishments of the IGF to date, but perhaps they just don't value the multistakeholder process.

Of course, that's not to say the path has always been smooth. At first, the dialogue in the IGF was awkward. But relatively quickly, diverse stakeholders learned how to talk together, share experiences, and work together. This is seen in the nature of the workshops on this week's agenda but also in other discussions that go on outside of IGF, such as various national and regional forums addressing Internet matters, and in the lessons that participants carry back to their home countries to shape their work and contribute to Internet development. These are the things we value in a multistakeholder forum.

In many ways, the IGF is very consistent with the Internet model. At the Internet Society we talk a lot about the Internet model and it's worth spending a moment on it here because it underpins the incredible success of the Internet's evolution to date. So in practical terms, what does the Internet model mean?

First, the Internet is a network of tens of thousands of networks, drawing overall resilience from distributed responsibility.

Second, it works because of the collaborative engagement of many organizations. People in organizations from many backgrounds and with different expertise are

involved: researchers, businesspeople, civil society, academics and government officials. All this is the key to the Internet's success.

Third, the development of the Internet is based on open standards, which are openly developed and broadly and freely distributed. Participation is based on knowledge, need, and interest rather than formal membership. There are no membership fees, and this is in itself important. The Internet community has always worked to reduce barriers and encourage broad participation.

And finally, the Internet model is also based on widely supported key principles, such as the end-to-end principle, which encourages the creation of global deployment of innovative, successful, and often surprising applications. And those who create applications don't need permission to deploy them on the Internet. And more importantly, users themselves choose which applications suit their needs, hopefully with no intermediate filtering.

In short, the Internet model is a robust, flexible, adaptive system whose value is greater than the sum of its parts.

So at the midpoint IGF, what can we say about it?

Some criticize the IGF as a talk shop, but I believe this critique completely misses the point. While initially questioning the need, the Internet Society has come to value the opportunities created by the IGF. We are encouraged to see the pursuit of issues in a multistakeholder engagement model, and we maintain that these outcomes would not have been possible in any of the traditional, intergovernmental models that we are aware of. We recognize that the IGF is a unique forum where ideas can be explored and tested by stakeholders on an equal footing, unburdened by the constraint of intergovernmental proceedings. The IGF does things that intergovernmental structures cannot do.

Governments and intergovernmental organizations should also value the IGF as an incredible opportunity. Nothing in the IGF either binds governments to implementation in their sovereign territory or prevents them from taking the actions they believe are in the interests of their citizens. In fact, participating in IGF enriches their and their citizens' decisions. We should recall the message of the Secretary-General of the United Nations to the opening ceremony at the IGF last year in Rio, where he said, "This forum is modest in its means, but not in its aspirations. It may have no power to make decisions but it can inform and inspire those that are in a position to make them."

So, what next? How will we measure the IGF's impact?

We can consider that the IGF has positive impact if its program contributes to the deployment of the Internet in all parts of the world and to building communities and capacity. In the end, the value of the IGF is established by its participants. Those of us here, those who follow remotely and most importantly, those who come away from this meeting and say, "Yes, I can use that back home": that is what makes the IGF worthwhile.

It is vital that we listen to all the voices at the IGF and beyond. The voices of those on the front line of Internet development tell us of the incredible value that the Internet and its underlying principles brings to them, from encouraging communication to enhancing openness, enabling creativity and empowering community. All of us here have a tremendous opportunity to meet, to explore issues and approaches, to share experiences, to learn, and to be motivated.

Let us leave the IGF at the end of this week enriched by discussions and connections and return to our respective communities and countries. Let us get back to work there, developing the Internet, bringing people online and spreading the benefits of the Internet to all.

CHAIRMAN RAJA:

The next speaker is Ms. Alice Munyua, Coordinator, Kenya ICT Action Network, and Director, Communications Commission of Kenya.

ALICE MUNYUA:

The Tunis World Summit on the Information Society underscored the need for multistakeholder processes initiated at the national, regional and international levels to discuss and collaborate on the expansion and the vision of the Internet as a means to support development efforts to achieve internationally agreed development goals and objectives, including the MDGs.

It was in this regard that Kenya organized and hosted the first East African Internet Governance Forum that took place in November 10th to 11th in Nairobi. The forum's main theme was opening the Internet governance debate in East Africa, thinking globally and acting locally. It was a follow-up to international governance forums held in Kenya, Uganda, Tanzania and Rwanda to identify our own local priority issues in the respective countries. The national IG issues were also used as a building block which is called the East African IGF.

This forum was attended by over 180 stakeholders drawn from business, civil society, media, academia and government, as well as individual Internet users and others. This was the first of its kind in the African region and was initiated from the realization that there was a need to address very limited participation by African stakeholders in not only the Internet Governance Forum but also in other global ICT policy processes.

It was organized through a collaborative partnership between various government institutions from the region, including the various regulatory authorities of the East African countries, the private sector entities, civil society and media, as well as international partners including the ITU, ISOC and others.

Of the priority issues and recommendations identified by the East African IGF meeting, the most important was universal affordable access, focusing not just on creating more consumers, but also looking at creating entrepreneurs, allowing for

innovation that then eventually would translate to social, economic, cultural and political benefits for all.

The EAIGF also looked at the issues of capacity and skills and noted that as one of the important priority issues, as well as the management of critical Internet resources, including transition from Internet protocol version 4 to version 6, and more clarity and improved collaboration in the redelegation of country code top level domain names, specifically the dot UG in Uganda and the dot RW in Rwanda.

Issues of cyber-crime, cyber-security and privacy were considered a priority as well, with ideas and recommendations around the setting-up of a national computer readiness team, as well as computer security incident response teams and strategies.

The development of national and regional Internet exchange points was considered very important, and it's already in process in some of the East African countries.

The East African Internet Governance Forum acknowledged the importance of the multistakeholder process introduced by the WSIS, and for us in the East African region it has worked very well, especially in Kenya in terms of the development of the ICT process and the whole regulatory process. So it is crucial that we continue to work with all stakeholders, giving them all an equal footing in not only the Internet Governance Forum, but in all other Internet policy-related processes, both at the national, regional and international levels.

Finally, it is going to become a national event prior to the Internet Governance Forum and is going to be hosted by the government of Tanzania in 2009 just prior to the Cairo Internet Governance Forum.

CHAIRMAN RAJA:

The next speaker is Mr. Abdul Waheed Khan, Assistant Director General, UNESCO.

ABDUL WAHEED KHAN:

The Internet has clearly emerged as a powerful medium for dissemination of information and knowledge. It is inherently democratic and empowering, providing unparalleled opportunities to realize the dream of a global free flow of ideas and universal access to information and knowledge.

For UNESCO, the principles of freedom of expression and universal access to information are essential for building inclusive knowledge societies. These two principles must be safeguarded on the Internet, and, consequently, in the Internet governance structure.

Internet technologies provide open channels to freely express opinions, but can also be used to restrict and control information flows. We need clear and globally applicable principles based on human rights and legal, ethical and technical

standards and legal provisions to organize these channels and promote freedom of expression.

Access for all in all languages is a priority for UNESCO. We believe it is important to ensure that the technical structure of the Internet provides access to content in all languages. We therefore contribute to the development of Internationalized Domain Names. We offer specific expertise in the area of multilingualism for the development of an inclusive process that would allow an important step in the evolution of the Internet into a fully global space. Media and information literacy is also critical to empower all users to use the Internet tools to access information relevant to their needs. There is no substitute to universal access to information and knowledge.

CHAIRMAN RAJA:

The next speaker is Ms. Meredith Atwell Baker, acting Assistant Secretary of Commerce for Communications and Information and National Telecommunications and Information Administration Administrator, United States of America.

MEREDITH ATWELL BAKER:

There are multiple venues to discuss Internet governance and these related issues. So what makes the IGF so special and such an important venue that it's a "can't-miss"?

First of all, the IGF is the key output of the World Summit on the Information Society. The WSIS was the first time heads of states came together and recognized the importance of information and communications technologies, not only as traditional communications mediums, but also as an enabler for broader economic, social and political development.

Second, the IGF, while being affiliated with the broader United Nations system, fills a niche that traditional intergovernmental organizations cannot fill. Its lightweight and decentralized structure allows it to be flexible in terms of procedure and avoid burdensome preparatory processes. The IGF is unique in that all stakeholders – governments, industry, civil society, and the Internet technical community – participate in all aspects of the planning and execution on a truly equal footing. The effective Multistakeholder Advisory Group that acts as the program committee and offers important input on discussion topics, speakers and format, has been extremely important in this regard.

Lastly, the fact that there is no pressure at the IGF to negotiate a treaty, a set of contracts, rules of procedure or an output document, allows for free, open and frank exchange of opinions and ideas that is not replicated in any other international forum. This makes the IGF truly one of a kind.

I know that some have questioned the usefulness of the IGF, as there are not negotiated outputs or an elevated role for governments. I would argue that this fails to recognize the agreed purpose of the forum. At the ITU, when the international

community is establishing rules and norms for the allocation of radio frequency spectrum, it makes sense for governments to have the leadership role. At ICANN, when the international community is coordinating the Internet's unique technical identifier system, it makes sense for the private sector to take the preeminent role. But here, at the IGF, when the international community is meeting to exchange information and build capacity to foster the sustainability, the robustness, the security, stability and development of the Internet, this must happen in truly a multistakeholder fashion, a task that only the IGF can perform. While the United States is fully committed to the other institutions referenced above, we welcome wholeheartedly the IGF into our global family of priority international venues.

In conclusion, once again, let me take this opportunity to stress the important role that the United States strongly believes the IGF meets. The reality of the IGF, an open and inclusive dialogue among all stakeholders of the international Internet community, discussing critical issues concerning the future of the Internet, is something we all should be proud of and committed to support.

CHAIRMAN RAJA:

The next speaker is Mr. Paul Twomey, CEO and President, Internet Corporation for Assigned Names and Numbers.

PAUL TWOMEY:

At this third IGF, we are both taking stock of the progress achieved in our earlier meetings and looking forward to the challenges we face with an ever-expanding Internet. It is also an opportunity to reflect on the shared experiences, programs and initiatives in respective regions that have resulted from the IGF so far. The original themes laid out in those meetings – access, diversity, openness, security and critical Internet resources – are still valid. But we have the opportunity this week to re-evaluate those themes and weigh them against the expectations of the next billion Internet users. That is in the context of the “Internet for All.”

Just ten years ago, we had 100 million users of the Internet. Today, we have 1.4 billion. And with the rapid growth of mobile communications networks and the availability of access to the Internet on those devices, that number is going to increase very quickly. One has only to watch the numerous ads on Indian television – and Indonesian television, for that matter – to see how consumers worldwide are being presented with an image of a mobile Internet experience. Those users will demand all the products and services the Internet community has come to expect: everything from financial services to health care to transportation and navigation to education. More importantly, they'll expect to do so in their own languages and language scripts. These amazing innovations, which are on the new horizon, will offer a wealth of opportunities, but also a myriad of challenges. This week's workshops will explore many of those challenges – access, multilingualism, cyber-security and cyber-crime, a balance between privacy and openness and a smooth transition from IPv4 to IPv6.

The future of the Internet is in everyone's hands, including those of us here in the IGF. The ICANN community has taken some very important steps recently to prepare a secure, stable and scalable foundation for an Internet for all, for the next billion users and those thereafter. Let me focus on two of them, in particular: Internationalized Domain Names and new generic top-level domains.

ICANN's current activities involve perhaps the most pivotal development in the domain name space since the beginning of the Internet. At its 32nd international meeting in Paris in June, the ICANN board approved a policy process that was some three years in the making to open up the generic top-level domain space to further competition and choice. To further a globalizing, scalable Internet, diversity, choice and innovation in the TLD space are key.

You have probably heard that we have just released for public comment a Draft Applicant Guidebook for new generic top-level domain applicants, as well as a draft implementation plan for Internationalized Domain Name, country code top-level domains. We exhort all of you to engage with us in discussion and dialogue and reform and resolution of those discussion documents.

The Internet is no longer confined to Western societies and developed nations. The next generation of Internet users will come not from developed countries but from developing economies, the very communities that Internationalized Domain Names, particularly IDN top-level domains and country code top-level domains, can help the most. Through its multistakeholder and bottom-up processes, ICANN is developing a stable system for supporting these revolutionary changes to today's Internet.

Looking to the future, the forces fueling technology development and innovation are very strong. Despite doubts raised by the recent financial crisis, innovation, creativity and technology will continue to provide the solutions to many of the major and complex challenges facing the globe. Education and capacity development are crucial to economic advancement, and technology can be a catalyst to education.

As we look at the impact the Internet and related technologies can have on the future of a still globalizing world, I think four themes are identifiable.

Firstly, the expansion of global ubiquitous networks is a fundamental driving force for innovation, both in its development and in its consumption. Both the growth of the Internet and the increasing access to the Internet through mobile communication networks are also transformative forces for all sectors, including business and governments. The consequence of this growth and convergence is an enormous consumer-citizen engagement and devolution of decision-making throughout the globe, especially within the developing world.

Secondly, multidisciplinary approaches are essential for achieving solutions to many of the globe's complex problems and opportunities. But such an approach is a challenge to traditional institutions and approval of management systems.

Thirdly, global multistakeholder models for dialogue, coordination and standard-setting are essential. The IGF is one important aspect, contributing to enabling

dialogue on a multitude of issues relating to the Internet in a multistakeholder environment.

Fourthly, I think we're in a period of fundamental transition. And the velocity of change is accelerating, driven, I think, largely by emerging ubiquitous connectivity. This transition is seen in the move from "planning for" to "planning with," from a passive model of consumption to one of engagement, from a top-down to a more distributed and bottom-up decision-making model, from local to global, and from developed to more developed and developing, and, indeed, from developing to developed.

Part of planning for the future is, of course, models for engaging on Internet issues. The IGF, while a young entity, was established through a worldwide consultation of the WSIS process. It's proven itself as an important approach to ensuring a multistakeholder dialogue on issues important to the Internet space, sharing experiences and expertise. We have seen this from IGF meetings already, the emergence of national and regional IGF-related dialogues, multistakeholder engagements on Internet issues, continued enhanced cooperation among various organizations and entities, and even programs and projects coming out of the IGF meetings. And this only after three years.

We have a responsibility for the next generations, for the next billion users, to ensure that the issues related to the Internet area are engaged by all stakeholders, conducted in a multistakeholder forum.

CHAIRMAN RAJA:

The next speaker is Ms. Graciela Selaimen, Executive Coordinator, NUPEF.

GRACIELA SELAIMEN:

The Internet has developed vertiginously in the last decade, mainly due to its open, interoperable, non-hierarchical, open-standards nature that has promoted the free flow of information and communication, consolidated a culture of collaboration and led us to new paradigms of cooperation, knowledge-sharing and production. The public and egalitarian nature of the Internet also fostered the expression of a wide diversity of voices and world views in a way that has definitely challenged the media monopolies and the cultural industry, although we know there is a long way ahead until the human right to communicate, including through the Internet, effectively reaches all the people in the world.

Today, we face an ideological confrontation among two main tendencies that are manifested in the Internet's several layers. One, aiming to deepen the free flow of information, the construction of the commons, broadening the public space and the public domain in the use and in the development of the Internet. The other, aiming to control, restrict the access to information and its flow, inspect and refrain its free development in order to benefit economic processes based on the private appropriation of knowledge and of the infrastructures on which information circulates, threatening the public and egalitarian nature of the Internet.

In face of this, it is important to remember and to remark that, throughout history, humanity has been able to challenge the most rigid power structures with its creativity and with the urge for freedom that is inherent to the human spirit. This has brought us here. We are a result of human hope, solidarity and tenacity. We are here to discuss Internet governance structures and policies, and, in this third meeting of the IGF, we must move forward, building upon the relevant work that has been done by this forum so far. Let's do it taking steps towards an Internet environment based on human rights, on inclusiveness, openness, operating for the public interest, fostering the sustainable development of societies, while respecting local cultures and diversity. Let's move towards the radicalization of democracy and equality in all levels of human experience and build Internet governance structures and processes that are transparent, accountable, people-centered, open to the participation of all groups of interest, ensuring a greater democratic basis to Internet governance structures.

I'm confident that we can work together to find concrete ways to defend and to ensure rights such as freedom of expression, privacy, universal access, access to knowledge, diversity, health, education, participation in public life, sustainability and equality among people, starting with equality among women and men, both on the Internet and outside it.

The IGF, a successful space for open dialogue, can also be a space for deliberation and participative decision-making. In this regard, I fully agree with Dr. Jeremy Malcolm when he says that the IGF ought to develop the capacity to more fully carry out its mandate, including the generation and communication of policy recommendations to other institutions and the general public.

CHAIRMAN RAJA:

The next speaker is Mr. Hamadoun Touré, Secretary-General, International Telecommunication Union.

HAMADOUN TOURÉ:

It is worth reiterating that the IGF was created as a result of the World Summit on the Information Society organized by the ITU, as the most wide ranging, comprehensive and inclusive debate ever held on the future of the information society, where, for the first time, governments, the private sector and civil society worked together hand in hand and, for the first time, civil society did not have to have its voice heard through demonstrations outside the rooms.

Through the Geneva and Tunis phases of the World Summit on the Information Society, the ITU proactively solicited contributions from stakeholders worldwide. Intensive preparatory work for the Tunis phase of WSIS had already built significant global consensus on the principles governing ongoing policy deliberations. At the close of that summit, we spoke of the breakthrough agreement on Internet governance, which acknowledged the need for enhanced global cooperation and the need for the application of principles of freedom of access and national

sovereignty in each country's management of its ccTLD, as laid down in paragraph 35 of the Tunis Agenda for the Information Society. We underlined the importance of strengthened cooperation in the development of globally applicable principles for the management of critical Internet resources. We held the agreement and the creation of the IGF in accordance with paragraph 72 of the Tunis Agenda as a turning point that would pave the way for all countries to exercise their national rights in managing their own critical Internet resources.

Three years later, where are we?

I'm very pleased with some of the progress achieved by ICANN over these past three years on critical issues, such as security and internationalization of domain name systems.

For our part, the ITU has been very active in implementing both the letter and the spirit of our WSIS commitments.

- On 17 May last year, I launched the Global Cyber-security Agenda, a global framework for international cooperation aimed at enhancing global public confidence and security in the use of ICTs, in response to the action line C5 of the WSIS that was assigned to the ITU.
- Because children are increasingly vulnerable to the predations of cyber-criminals, we recently enhanced the GCA, the global cyber-security agenda, with the launch of our new Child Online Protection Initiative, or COP.
- The ITU's 2008 World Telecommunication Standardization assembly adopted key recommendations on IPv6 and on nondiscriminatory access to Internet resources.
- The ITU Council last month created a new working group dedicated to accelerating the pace of work on Internet-related public policy issues. The ITU also continues to push for faster progress in building international Internet connectivity in developing countries.
- Last year's ITU Connect Africa summit alone raised an unprecedented \$55 billion in investment commitment, especially targeting regional connectivity projects.
- And in April next year, the ITU's World Telecommunication Policy Forum in Lisbon will welcome over a thousand senior policymakers for high-level discussions on four key themes, among them Internet-related public policy matters.

Distinguished colleagues, when we met in Rio last year I spoke of the need for next-generation Internet governance, governance that reflects the changing realities of our world and the changing nature of the Internet itself. And I make no apology for stating bluntly that I believe the IGF was not on track to meet the expectations of many countries that participated in the Tunis phase of WSIS, and who were hoping for frank and fruitful discussions and concrete solutions on globally applicable principles for the management of critical Internet resources.

When creating the IGF, we all believed that it would make a difference, and I still believe so. But if we allow ourselves to get bogged down in rehashing issues for which there was already broad global consensus in Tunis, then critics are justified in labeling our efforts a waste of time.

Last month, I was privileged to participate in the ICANN meeting in Cairo, a meeting that elicited forthright discussions on our strengths and weaknesses. One of the challenges in the current structure is a Governmental Advisory Committee, or GAC, that clearly needs improvement. Not only does this body lack any kind of policy-making muscle, but it is highly unrepresentative. Of the ITU's 191 member states, barely half have representation in GAC, and under a third have an active role.

I continue to receive complaints about issues of great importance to ITU member states, such as the management of ccTLDs, the last example being for Trinidad and Tobago, which still has not been resolved. When issues of such concern to sovereign states cannot be addressed in a timely and satisfactory manner, it is only natural that these countries turn to the ITU for help.

Ladies and gentlemen, since the last meeting of the IGF, the world has been plunged into an economic crisis, the magnitude of which is only just beginning to be fully appreciated. At a top-level crisis meeting in New York, heads of international agencies were unanimous in their call for global frameworks to embrace a new multilateral approach. These leaders were unequivocal in their call for a new environment that supports, rather than undermines, social fairness and sustainable development.

This compelling need for new, more equitable and additional frameworks are just as important when applied to cyberspace. As we approach the expiration of the MOU between ICANN and the US Department of Commerce, we should assure that the same principles of democracy, advocated by some of the loudest voices on the Net, must also apply to the governance of this critical global resource. I therefore urge IGF members to strengthen the will to move forward in addressing the issues for which this forum was set up in the spirit of paragraph 72 of the Tunis Agenda.

As the international agency committed to connecting the world, the ITU has a mandate to extend equitable, affordable access to all the world's people, and we continue to address this issue here in the IGF. This is a responsibility we take seriously. I, for one, would like to see a clear demonstration of the same commitment from the IGF.

Today we seem to see the world as divided. I believe that we should avoid such a division. The IGF is a place where we can solve our differences. Today, the world is one where we seem to resolve our differences through wars. And we know from the conventional wars that the best way to win a war is to avoid it in the first place. We should, through the IGF, make sure that cyberspace is a safe and peaceful place where no countries are fighting and no individuals are fighting, and where every citizen of this planet can access freely the Net, and safely.

Security cannot be left to only some few individuals. Security of the people should be managed by all, including governments. And while we're keeping cyberspace secure, we should make sure that we are preserving the freedom and privacy of our citizens.

CHAIRMAN RAJA:

Friends, this concludes the list of speakers of the opening session of the third annual meeting of the IGF.

I do hope the deliberations held here are fruitful, that we share regional and corporate experiences between us, and that the role of the policymakers, academicians and the common people in the technology revolution, including the Internet arena, are discussed.

As we all know, science and technology must be utilized for the betterment of the society. The Internet is no exception to this natural formula. As such, we are committed here to ensure the accessibility and affordability of the Internet to the common people.

At the same time, we are deeply concerned about the cyber-security, coupled with the protection of data, needs some sort of convergence since the technological revolution will not stop itself within the territorial limits of your particular country.

As one of the speakers stated here, any technology, including the Internet, cannot be addressed in terms of developed countries . It will also be interpreted and discussed in terms of developing economics.

And so we discuss all these things here, and hope the deliberation held here will pave the way, good way, for the future revolution of the Internet arena.

Part 1 – Reaching the Next Billion

Chairman's Summary of the Main Sessions

The first day focused on the theme of "Reaching the Next Billion." The theme was covered in two panel discussions, one on "Realizing a Multilingual Internet" and the second on "Access." These were followed by an Open Dialogue on the general theme.

Panel on Realizing a Multilingual Internet

The first panel, dedicated to the issue of "Realizing a Multilingual Internet," was chaired by Mr. Ajit Balakrishnan, Chief Executive Officer at Rediff.Com, and moderated by Ms. Miriam Nisbet, Director of the UNESCO Information Society Division.

The panel discussed issues related to multilingualism and promoting diversity on the Internet, including accessibility and the importance of enabling access for people with disabilities.

The Chair of the session underlined the challenge of making the Internet available to people of all languages and drew attention to the situation in India, a case in point. As the world was looking to increase Internet users by a billion, India would have to contribute at least 250 million of that, from an estimated present user base of roughly 40 million.

The session identified five issues for the afternoon dialogue to consider:

- The importance of having content in local languages, and that people should be able to create and receive information in their local language to express themselves in ways that their peers could understand.
- The importance of localization and availability of tools, including both software and hardware, for example, as well as keyboards and other devices, search engines, browsers, translation tools, which should be available in multiple languages.
- Efforts to internationalize domain names were emphasized by many, with a number of speakers pointing to the technological difficulties as well as the complex policy and political aspects, such as the work undertaken by Arabic script IDN Working Group and how that model could be taken to other language groups to move that issue forward.
- The session noted that online communication was increasingly occurring in media other than in written forms, and that multilingualism in mobile and multiple media was something that needed to be considered.
- Lastly, there was no common framework and a common language for addressing these issues and it was in this context in particular that the IGF might move the discussion forward.

Panel on Access: Reaching the Next Billion

The second panel was chaired by Mr. Kiran Karnik, Member of the Scientific Advisory Council to the Prime Minister of India and Founder-Director of the Indian Space Research Organisation's Development and Educational Communication Unit, and moderated by Ms. Anriette Esterhuysen, Executive Director of the Association for Progressive Communications (APC).

The Chair noted the critical importance of not just considering how access could be increased to the next billion, but the next billions, all of those still outside. The Internet was not just about business; it was about empowerment, and that depended on access. Second, access required a number of factors, such as connectivity and affordability, but affordability did not mean low cost alone. It was also about using existing devices like mobile phones or, more importantly, new ways of providing access either through community means or through new business models where access was effectively paid for by somebody else.

The session examined the issues of access from the three main areas of supply, demand and development and was successful in reaching consensus in many areas with a key message that access needed to be viewed in the context of an ecosystem and that the access gap could not be addressed without looking at various facets. One such facet of the ecosystem was policy and regulation, which needed to be conducive to a market structure that could encourage investment, with investment following from more than one source, from government, from the private sector and other mechanisms. Affordability was part of the ecosystem and affordable infrastructure was a fundamental building block.

Speakers considered leadership to be a key factor, linking aspects of policy and regulation to investment and to capacity development. Noting that to achieve sustainability a process of institutionalization was required; one-off policy reforms did not provide lasting solutions, and regulatory institutions had to be able to adapt to change that provided continuity. It was also pointed out that reaching the next billions would require an enormous investment of capital, which in turn would require a public policy environment that created incentives for investment. Further, it was suggested that such an environment should include regulatory transparency and predictability provided by an independent regulatory regime.

Another key message was to agree on the roles of the different stakeholders; the role of the state, of the private sector, civil society and technical experts. How could they collaborate and ensure complementarity, as opposed to working at cross-purposes? The IGF and the sessions in Hyderabad were part of a solution to clarifying this aspect in particular.

Considering supply and demand, there was some agreement that supply-driven models alone were not enough, demand actually existed and needed to be identified and captured and this called for increased awareness among users, human capacity building, and use of ICT for broader social purposes such as education and healthcare. It was also mentioned that to achieve increased access,

there was also need for sufficient supply, effective demand and a functioning market. One speaker held the view that there was proof that competition could drive down prices, increase choices, and expand choices.

The importance of mobile communications as the means of reaching many of the new users coming to the Internet was strongly recognized. It was noted that the Internet provided the opportunity for users not only to be consumers, but also producers and citizens, and that therefore it would be essential to ensuring that improved access would enable empowerment.

Open Dialogue Session

The Open Dialogue session in the afternoon was chaired by Dr. B. K. Gairola, Director General NIC, Government of India. The session was moderated by Mr. Hidetoshi Fujisawa, Chief Commentator and Program Host, NHK Japan Broadcasting Corporation, with co-moderators Ms. Alison Gillwald, Director of Research, ICT Africa, and Mr. Patrik Fältström, Consulting Engineer, Cisco Systems; Member, Board of Internet Society; Member, Swedish Government IT Advisory Group.

The session sought to identify the linkages between the two morning themes in achieving "Internet for All" and provided an opportunity for all forum participants to deepen and enrich the discussion.

A key message from the dialogue was that when considering the theme of connecting the next billion, that there was tremendous pent-up demand when thinking about those coming online next while at the same time significant barriers for connecting the last billion. These two issues needed to be considered at the same time.

Existing barriers in many countries in terms of market entry were the main reason for our inability to provide affordable access and these were policy issues that could and should be addressed. However, while liberalizing markets was the obvious solution, the modalities of the liberalization process were important. It was noted that liberalizing markets was more than a matter of opening up markets, as with infrastructure industries it was difficult to achieve the kind of perfect competition that would allow for the efficient allocation of resources. Therefore, regulatory frameworks that provided certainty and stability, and also incentives for investment were required. Such a public policy framework needed to address market structure, competition and regulation, and also needed to address issues of market failure, and questions of universal service and of ensuring equity between those who had access and those that did not.

There was discussion about some promising experiences of increasing access including the prospect for mobile services to be the primary platform for Internet in the developing world. Contributions to the dialogue noted the importance of competition throughout the connectivity chain, from international transport and

gateways through intra-country transport, the use of Internet Exchange Points to maximize the local exchange of traffic, and the value of business usage of the Internet and of VoIP in driving demand and contributing to economic growth.

In response to a question, one speaker referred to why Denmark had been so successful in broadband deployment, noting that the country had adopted a flexible regulatory environment, had chosen a market-driven approach, reliance on private investments, an emphasis on regulatory stability and transparency, and avoidance of regulatory micromanagement. The regulatory regime should be flexible and able to adapt. Denmark began with service-based competition to start the process. The focus now was on facility-based, infrastructure-based competition. Availability of content was also important. In this regard, the speaker pointed out that user-generated content was important in Denmark, as was peer-to-peer and development of e-skills.

Commentators noted that multilingualism was not only concerned with written language. Multilingualism had also to consider access and creation of content. The next billion users should not only be receivers of information, but also the creators of content and sources of innovation. In discussions about local content, the session noted that it was not about geography, but about culture, language or script used to represent the content people wished to use or create. It was generally felt that reaching the next billion would also make the Internet more global.

Panel Discussion on Realizing a Multilingual Internet

Chair : Mr. Ajit Balakrishnan, Chief Executive Officer, Rediff.Com

Moderator: Ms. Miriam Nisbet, Director, Information Society Division, UNESCO

Panelists:

- Mr. Alex Corenthin, NIC SN (Senegal), President of ISOC Senegal and lecturer at the Polytechnic Institute of the Cheik Anta Diop University of Dakar (Ecole Supérieure Polytechnique)
- Ms. Manal Ismail, GAC member, Egypt
- Mr. Hiroshi Kawamura, President, Daisy Consortium
- Ms. Viola Krebs, MAAYA, ICTV
- Ms. Tulika Pandey, Additional Director, Department of Information Technology, Ministry for Communications & Information Technology, Government of India
- Mr. S. Ramakrishnan, CEO of the Centre for Development of Advanced Computing (C-DAC), India

Extracts from the Transcript of Proceedings

Introductory Remarks

AJIT BALAKRISHNAN:

The theme of today's panel is how to get the next billion Internet users into the world. One of the things which strike me is if the world is looking to increase Internet users by a billion, India has to contribute at least 250 million of that. And if we don't do that, it is unlikely that you will reach a target of a billion. India's user base right now is roughly 40 million. So it's a mega-challenge to take it from where we are now at 40 million to get to 250 million. Now, we got to 40 million after nearly ten years of the Internet. And I can briefly point out in a couple of minutes what some of the obstacles have been so far, and it may be something that applies to other countries.

At one level, it is the absence of tools. We do not have enough tools, like parts of speech taggers and so on. But that is not as much an issue in my mind. The real issues in India have been when we, for example, have 65 million occasional users and we have had e-mail operating in 11 languages, but virtually 99% of users prefer to use it in English. In India, there is a set of issues, because practically all of the 300 million young people who aspire to something in this country aspire to learn English. For them, it is partly because the IT and IT outsourcing booms have created roughly 3 million jobs in the last five years. That's the place people want to

be. And if you want to be there, you need to learn English. So English is an aspirational language. Consequently, there is very little interest in accessing the Internet in any other language than that. The additional part is 99% of Indian higher education is in English. Once you leave school, you have to learn English. Otherwise, you cannot compete in the job marketplace. The contradiction, however, is practically all of primary and secondary education is in Indian languages. So we are dealing with these complications.

In Indian languages, the issues, of course, have been that we have a large number of them, 16 to 17 major ones. So the market for any of these things is highly fragmented. The single biggest one, Hindi, is probably no more than 30% of the population and not particularly affluent, with the result that early adopters are not very high in Hindi.

But let us not assume that users want Indian languages. There is no evidence so far in the last ten years in the business. If anything, what is happening is what I call the Turkish solution. You know, some years ago it was decreed that in Turkey, you use Latin characters instead of Arabic, and that's always an eye-opener for any of us who visit Turkey from here to see Latin characters. But in India, informally, some of that is well on its way. If you drive through Mumbai or Hyderabad and see the billboards of Bollywood, which is a famous film industry, practically all the Bollywood films are made in Hindi, but the billboards and posters are in English. Another example of this is that one of our affiliate companies has created a piece of software that does predictive text, with the result that when you enter Latin characters on a keyboard, what appears on the screen can be said to be Hindi or Tamil or Telugu.

There seems to be a kind of underswell movement to use Latin characters to communicate in any of the Indian languages. These are real issues. So I'm sure during today's meeting, you will have an occasion to talk about all of these. There is a place to do investment in tools. But, to my mind, the issue is well beyond that. I think the consumers don't want it. So I think this is something to think about.

MIRIAM NISBET:

We're really trying to address three areas associated with multilingualism this morning.

One is trying to get content in local languages. As we've just been talking about, language is a necessary vector for communication. And if you cannot access the Internet in your own language or you do not have content that's available to you, you're going to be stopped right there.

Another issue has to do with localization and availability of tools in order to do that. And that would include software, it would include the training to use software, it would include hardware.

And then the third area that we're going to move into is the policy reasons behind the push for Internationalized Domain Names, or IDNs. That's really fundamental for

accessing Internet sites. To be able to do that is not something that simply is a matter of turning a switch or just saying, "Okay, from now on, we are going to use scripts that are different from Latin script." These solutions require some very sophisticated technical and technological fixes. So we want to talk not so much about the technical fixes but, rather, why is this important, why is this a big effort, why are governments involved in that.

Presentations by the Panelists

ALEX CORENTHIN:

Let me just try to tell you a little bit about the context of multilingualism in the African framework. And in order to do this, let me help you with a few numbers that I think would be worthwhile pondering.

First of all, I think it's important to recall that out of the world's 6,000 languages, 96% are spoken by only 4% of the world population, which I think demonstrates that there's a gap that needs to be filled on the international level. Since 96% of people are speaking only 4% of the languages, there is a huge number of people who are not involved because their language is not being taken into account.

One third of the world's languages, some 2,000, are spoken in Africa. They fall into four main families of languages, and they are all spoken across several countries. They involve large populations, but rarely do they exceed 40 million per language. Swahili is the exception. As far as all the other languages go, most of them have few speakers. We know, for example, that 75% of the remaining languages have not been transcribed and they have remained as oral languages. And for the 25% that have been transcribed, very few of them have been the subject of codification, and the others are still under study or are the subject of transcription that is amateurish. And this raises problems about the visibility of these languages, both in terms of the hard-copy support, and any support that uses transcription.

A study has shown that of the languages that have been codified, there is little on the Web about these languages. Most often, the content is only for a very restricted number of speakers, a community that has a political will and logistics as well to be able to exist. That is the case for the two most important languages on the continent: Swahili, Hausa and some of the languages spoken in South Africa.

Only 4% of Internet users come from Africa. But we have to say that the majority of these are using European languages to a great extent. These are the global communication languages. This is attributable to the fact that they have a need for communication and a need to exist in this way. Now, if we look in a more detailed way at the common languages, English and French, only 0.6% out of the total in the world comes from Africa.

Now, if we look at these figures, a few questions spring to mind.

Is it a problem of the coding of the characters? I do not think so, because all systems, based on pictograms, based on the alphabet, can be used on the Internet.

Most languages in Africa are based on the Latin alphabet. So I think we can set that issue aside.

Is it a question of motivation? I would like to focus on motivation, because motivation to produce content in the local languages is important when the local users can actually use that content. But that motivation can also have a political dimension.

The issue here is that often one mixes up national language and official language. Often, the official languages spoken in the African countries are languages of the north. The national languages are not truly established as official languages in the educational system of individual countries. Now, the producers of content are those who have been to the schools, have been involved in the educational system, and they are not literate in the national language. So I think that the political dimension is that one has to put a more vigorous strategy to make sure that the national languages are involved in the educational system so that those who are producing content can take into account the needs, requirements, of those who are literate in the national languages so content can be produced to be able to preserve the languages that only exist if there is a community surrounding a particular language. This low number of users or speakers of a particular language would explain this, I believe. But the only reason that I think we should stress here is the political will.

S. RAMAKRISHNAN:

As you all know, India is perhaps the most diverse country in terms of multilingualism. We have 22 official languages, over 2,000 dialects, and four major language families – Indo-European, Dravidian, Austral-Asiatic and Tibeto-Berman. Furthermore, there is a dichotomy between scripts and languages – same script, multiple languages.

Much work since the late '80s has gone into creating corpuses, creating tools, and we still are reaching out to the next billion. We have seen the IT revolution. The key challenge for us is how to work on this multilingual challenge.

What is the content issue? Statistics show the highest content today is in Tamil and Hindi followed closely by Telugu, Urdu, Malayalam, Kannada and further other languages. In terms of categories, media dominates – that is newspapers and other things. Second is in terms of how-to categories, and then e-governance. Government applications are unique in India.

So given all these challenges, first and foremost there has been emphasis on developing the tools, at the very basic level input, storage and display. The C-DAC itself and many other players have worked very hard in the last two decades on creating these tools, and we have said work on the 22 official languages will be completed very shortly. Unicode has enabled acceleration of progress on these things, and much progress has happened in the areas of grammar and dictionaries as well.

These languages are much more complex in terms of Web creation because 90% of people use Indian languages and only 10% English – but the content is the other way around. So we have to swap these percentages, otherwise we will not be able to reach out to the billion people. You find that good lessons are there in terms of television. The regional languages and the movies, for instance, have touched everybody. So a key question is what we need to do to meet those expectations in terms of tools, in terms of creating content. And tomorrow you find similar challenges in respect of social networks, audio, video and other applications, and the platform itself, where there is great potential to go into multilingualism in the Internet through mobile.

VIOLA KREBS:

I would like to focus on five challenges.

The first point I would like to make is the search engines. When we realize that the search engines are losing their ability to index a significant portion of content published on the Internet and that publicity is related directly or indirectly to research and can therefore have a significant influence on accessibility to information, then we do, indeed, see that the issue or question of search engines is extremely important for linguistic diversity. And it is not only associated with the order of importance of pages, for example, but also categorization algorithms. If you look at a search engine such as Google, for example, this is the kind of search engine that uses this system. But it draws on our own research so as to have links in a targeted fashion.

Now, turning to the translation tools, for the most part, these tools are proprietary. In other words, they are not open systems, open tools. They are increasingly powerful tools that are available, but there are a number of challenges that still need to be faced in terms of these tools.

The third point or challenge is questions or issues associated with the scripts as well as the hardware that is necessary to be able to use these scripts. Languages that are mainly oral languages have to be documented. UTF8 offers possibilities to be able to use languages in cyberspace, but progress, which is relatively slow in this area, does raise a number of challenges. There are also alternatives to the ICANN system. Net4D would be one example.

The fourth point or challenge I would like to share with you, and this is a very important node, I think, when one talks about linguistic diversity in cyberspace, is content. How can we give or offer universal access, in other words, an emancipation, as it were, of citizens in the world to be able to have a shared knowledge society, something that is accessible to the greatest number of people? Perhaps I should touch on standards such as creative commons, and then there's the whole question of royalties and access to information with information commons, and, of course, there is also the fact that we should be thinking a little bit beyond written texts, and especially when we are talking about accessibility to local languages that are for the most part oral languages, not written languages. We

have to be able to better integrate tools such as videos, for example, but also sound or audio. And images, pictures, other ways of communicating than the written form.

The fifth and last challenge is users' digital literacy. When we realize that over time there are greater numbers of users who are connected to the Internet but that there is proportionally less production in spite of the fact that, today, we have tools such as blogs, this draws our attention to the user of the Web and makes us aware that it is very important to people to publish content in local languages. And this way, bridges can be built. And the literacy of users will be increased, as well as the publishing of relevant information.

In conclusion, I would like to say that I am hopeful. We do see that the Internet today is no longer a Web that is principally used by English speakers. There's a greater diversity of content. There's also a greater diversity of the possibilities that we now have through the Web. And I think that it's safe to say that we can hope that the theme of this conference will be achieved in the near future.

HIROSHI KAWAMURA:

The DAISY Consortium was established to meet the requirements of people who are print-disabled, those who are blind and visually impaired and dyslexic, who have other cognitive disabilities and so on.

The core of the DAISY Consortium's activities is to develop the standard which is open, nonproprietary, interoperable and free of charge, to be shared worldwide. At the moment, we are in the discussion stage of the most current standard to accommodate motion pictures, to include sign language support and to meet the requirements of people who are intellectually disabled. The DAISY standard is being maintained by the DAISY Consortium, which is the international nonprofit organization legally established in Switzerland.

We are targeting some of the global issues which are critical to be served by DAISY technology, such as textbooks in classrooms everywhere in the world, including indigenous people's schools, and secondly, the human security-concerned information, such as disaster evacuation training manuals. We had the very tragic experience of the tsunami in the Indian Ocean, and not only those surrounding countries' residents, but also many foreign travelers who were killed by the tsunami. So the evacuation manual for each area is crucial, which should be closely connected with the early warning system. But so far, there is no candidate to solve these issues like DAISY technology. And HIV AIDS is also a very important global issue to be tackled by a knowledge-based approach. If everybody knows how to treat AIDS and HIV, the current disasters may be minimized. And the e-environment will be another area of the effectiveness of DAISY in a multilingual context, because DAISY is all about the technology which meets the special requirements of people with disabilities, including all types of physical disabilities, which include visual or auditory disabilities, as well as cognitive or psychiatric disabilities.

So the requirements of those people are quite unique. Their real-world requirements are a source of innovation. The synchronization of audio, graphics

and text gives very good flexibility of access to one of the channels, at least. So those who can see, hear and read text may enjoy everything at the same time. But those who can only touch Braille may read Braille and share the information at the same time. Those who are dependent on sign languages or symbols may listen to the presentation at the same time, synchronized with text and other media, to join the sharing of knowledge and information.

The current paradigm of media has been neglecting some of the group of people. For video, it's very rich content. But for those who cannot see the screen, it's almost impossible to understand what's going on. And for audio, hearing-impaired or deaf people should have captions or sign language interpretation. And for intellectually challenged people, symbols, some of the symbols, are most important to comprehend the contents.

DAISY may include everything in one standard format. In this way, we are looking at DAISY as the best way to read, the best way to publish and, thus, create the new paradigm, which will include everybody in society towards the inclusive Internet and inclusive publications.

In closing, I would like to stress that the basic principle of a democratic society, which should be the basis of Internet governance in the future, is free and prior informed consent. This is stipulated in Article II of the United Nations Convention on the Rights of Persons with Disabilities, but also, it's a very basic human right. And the people who have been excluded from the Internet community or Internet should be included with this principle. And I hope DAISY technology and the DAISY Consortium will be contributing to this end.

MANAL ISMAIL:

First, I would like to stress the importance of the multilingualism theme, especially as we are talking about "Internet for All." And when we talk about Internet for all, we definitely don't expect all to be speaking English. So it has to be all languages from all language communities. And, of course, when we speak about a multilingual Internet, this also has to cover all aspects of the Internet. It's not only IDNs; it's not only the addresses and identifiers; but also it has to do with local content, software, applications, browsers, search engines. So it's a collaborative work for the coexistence of all languages, so it would be more helpful if everything is working in parallel to make sure we end up with a real multilingual Internet, yet a global one.

I participate in two working groups, the Arabic Working Group on Arabic Domain Names, and the Work Group on Arabic Script, and would like to share with you our experience from the Arabic community.

The Arabic Domain Names Work Group was established under the League of Arab States, and it has to do with looking into Arabic domain names from a language point of view. We already defined the Arabic language table. We already have a list for all the Arabic ccTLDs of the Arab countries. We had a pilot project for testing dot Arabic domain names, IDN.IDN. The next step was to coordinate with other language communities who use languages that are based on the Arabic script. And

this was a self-organizing work group, the Arabic Script on IDNs Working Group, ASIWG.

It has been a great experience participating in this specific work group. It has representation from different stakeholders. We have ccTLD registries, we have gTLD registries, we have government representatives, we have academia, we have technical people. We have participation from Iran, from Saudi Arabia, from Pakistan, United Arab Emirates, Syria, Malaysia and Egypt. We have gTLDs, we have, specifically, Afiliat and PIR with us. We have representation from UNESCO, ICANN and ISOC Africa. And we also have experts participating in the work group, such as Michael Everson and John Klensin, who brings to the group the point of view of the IETF. Currently, we have representation from language communities, such as Arabic, Persian, Urdu, Sindhi and Pashtu, and we are still looking for more participation from other language communities so that we can make sure we are as inclusive as possible.

Our guiding principles in this, we are looking for a solution that can be standardized, following the IDNA protocol, extendable, to make sure that other languages are smoothly included as they are ready, simple and transparent from a user point of view, either the registrant or the navigator, a fast and easy solution that is not a burden on the registry, and, again, something that works from a ccTLD and a gTLD perspective.

We try to layer our approach in solving the problems. We have four layers, basically. It's the protocol layer, the script layer, the language layer, and on the top is the application layer, which I would say is out of the scope of the work of this group. We started on the protocol layer. It has to do with rules or things that would be enforced by the protocol. And on the script layer, rules at this level should be agreed to be followed by all registries who would deal with the Arabic script in registering domain names. And the language would be a registry thing, I mean, has to do with optional and could differ from one registry to another. We agreed on the code that we would like to have it as allowed for registration, I mean protocol-valid for registering domain names. And we were very cautious at this layer not to remove anything that might be needed later by other languages.

I just want to stress that we need to cooperate and collaborate in order to coexist. And this might need some compromise and working together with all the goodwill so that we can achieve this, and to make sure that there is difference between the language and the script. People, they speak languages, they expect to register a domain name in their languages. But on the technical side, it's only script, so we have to be cautious and to work collaboratively to solve all such problems.

TULIKA PANDEY:

Just to add to what previous speakers have already expressed, to make this Internet inclusive, we are still taking one step at a time. So first we spoke about including other languages in addition to English. Then we've started to realize that inclusiveness would mean including people who are not just bound by language,

but may have other challenges which may need us to bring in ways and methods to bring them onto the Internet. But let us go beyond just talking in terms of getting in the scripts or getting in the languages, because we have still not talked about cultures. We may not be able to include them if we continue to work one step at a time. We are still losing, and losing very fast, a lot of tacit knowledge that is there in many of our communities and regions which are getting lost because we have not brought them onto the Internet. They do not find any use of the Internet or the computers, because we have not yet thought of how we would bring them onto the Internet. It is not a question of what we have to offer, but it is more a question of what would they need from us, the policymakers, the technology developers and so on.

Discussion

FROM THE FLOOR:

To the lady who just talked about Arabic, the question is how you went about defining the list of country code top-level domains, because often there are issues about deciding whether there's a need for a new convention for defining the country codes by, for example, two letters or three letters or writing the full names, that kind of issue. I would like to hear more about what are the issues that you face by defining your list of country code top-level domains.

MANAL ISMAIL:

Actually, as an Arabic-speaking community, we all agreed on having the Arabic IDN ccTLD strings as the short form of the country names. It was either the two-letter code thing, the full name or the short name. The full name, of course, is very big to be a top-level domain. And abbreviations, in general, are not used in the Arabic language. So we couldn't go for the two-letter code, because even in Arabic, even if it's two letters, sometimes it has a meaning. So it gives another meaning other than the name of the country. So as an Arabic group, we all agreed on going for the short names.

FROM THE FLOOR:

I had a question, and perhaps some suggestions for the panel that is assembled here.

I think one of the things that is missing in this dialogue about multilingualism that we want to get on the Internet is the need for a framework and a common structure for script and language-based solutions. We're talking about a problem that begins at the core of the Internet, at the domain name system, and goes all the way to Internet navigation. There are several things missing. For instance, there is missing a common glossary, a common set of terminologies on how to discuss these issues. Multilingualism is often confused with Internationalized Domain Names. One is not the same as the other. So what I would urge this panel and other participants

in the area of multilingualism is to really think hard about creating a common set of semantics, a common set of terminologies that we can use.

Secondly, I would urge the creation of some sort of a standard or a shared model for the adoption of scripts and languages online. As Manal was saying, people think languages, but computers work with scripts. And we need to find some common way to bridge that gap. Otherwise, I think we run a real risk of having simply scripts depicted online and not having languages. Some languages may completely miss this transition from an oral world to a digital computer-based world, national languages in particular for developing countries, from whom we expect more multilingualism than others.

MIRIAM NISBET:

May I ask our Chair to bring us to conclusion?

AJIT BALAKRISHNAN:

You may not like some of the things I am going to say but, nonetheless, when you invite an entrepreneur, you expect original ideas, right? I have listened with great empathy to speakers who dealt with problems. Some of these are real ones, problems that spoken-only languages have, problems with languages which have written script but too few users have, problems which the visually challenged or hearing challenged people have. All these problems are real, but if you put our feet to the fire and say the goal is to add another billion users to the world, this is not going to help you too much. It will probably add another 20 million or 15 million.

When we worry about domain names and local language scripts, for a person who comes from the tech side of the Internet, I wonder if we are worrying about problems in the wrong sequence. It reminds me a lot of the attempts in the '70s to make X400 a network standard. In the end, TCP/IP won out. And you must ask yourself, "Why did that happen?" Because you can sit in a committee and mandate people to do anything you want. People actually do things which are convenient for them.

Fundamentally, the Internet is not about content. When we sit around in meetings like this, we think that most people read weighty tomes published by the UN and others. In fact mostly young people are on the Internet and what they do is they send messages, brief messages to each other, or post messages on social networking sites or download music or enjoy pictures or video clips. None of this is really particularly language related. Virtually 90% of the content is text-free if you look deeply enough.

And one final thing, if you haven't heard about it, the PC era just ended in the last year and the future of access is mobile. But it's again not going to be text-based mobile. That's another message I want to bring to you from the trenches of the Internet world. Whoever gets a breakthrough on a voice-based Internet where you can speak into it and hear things back, that is a big prize. If that happens, you will find all your conferences have been wasted. Voice-based Internet is where the

future lies. And if national entities have to be pushed to do anything, it's to make sure you make the voice-to-text recognition system accurate. At the moment in India we are not getting results with more than 70% accuracy. If you can use the brains and get it to 95%, I think that is fantastic. That will solve all our problems.

Panel Discussion on Access

Chair: Mr. Kiran Karnik, Founder-Director of ISRO's Development and Educational Communicational Unit

Moderator: Ms. Anriette Esterhuysen, Executive Director, Association for Progressive Communications (APC)

Panelists:

- Mr. Rajnesh Singh, Regional Bureau Manager for South and Southeast Asia, Internet Society (ISOC)
- Mr. Shri S.K. Gupta, Advisor (CN), Telecom Regulatory Authority of India (TRAI)
- Ms. Jacquelynn Ruff, Vice President, International Public Policy and Regulatory Affairs, Verizon
- Ms. Peter H. Hellmonds, Head of Corporate Social Responsibility, Corporate Affairs Division, Nokia Siemens Networks
- Ms. Alison Gillwald, Director of Research, ICT Africa
- Mr. Brian Longwe, Chief Executive Officer InHand Limited, Director, African Internet Service Providers Association (AfriSPA), Board member of African Network Information Centre (AfriNIC)

Extracts from the Transcript of Proceedings

Introductory Remarks

KIRAN KARNIK:

Nothing could be more important than to discuss in this IGF the ways and means by which we can increase access and move not just to the next billion, but the next billions. There are three crucial aspects which I want to mention as we move on to our discussions, which have been put in various ways. There is one way of looking at it in terms of demand, supply and development. I would want to slice the cake in a different way and look at it in terms of access, connectivity and affordability. The access part is the crucial one, and that will depend on connectivity, affordability, and relevance.

Connectivity is really related to technical aspects, and is also crucially dependent on regulation and governance.

Affordability is particularly critical in developing countries. Internet should not only be accessed through the PC or the computer. Today, there is a mobile revolution

around the world, probably nowhere as much as India, where we are adding 10 million mobile phones every month. Surely, that's the access device of the future.

On affordability, another key element is the business model, where we need to move away from ownership and look at alternatives, whether it's pay-for-use or maybe even revolutionary new business models where the user doesn't pay at all.

Finally, there's relevance and the ability to build utility by having relevance, both in terms of content and access in ways in which you can reach out to it. It may be language, it may be culture. It may be, as you heard in the last session's closing remarks, speech to text and text to speech.

ANRIETTE ESTERHUYSEN:

It's very significant that we are having access to the next billions as a primary theme in the IGF. Many of us, when we embarked on the road of the Internet Governance Forum, knew that access was a relevant issue. But it took quite a while to begin to establish what are the public policy and the Internet governance issues related to access. The one introductory remark I would make, to explain why we have structured this session along the lines of demand, supply and development, is that what we have learned is that these dimensions do not stand alone, and that it's really the interplay between them that gives us the key to addressing the access gap. We need to look at competitive models and we need to look at collaborative models. We need to look at content. We need to look at connectivity and affordability. And we need to approach this from a rights perspective as well. So the access debate brings together very many different dimensions of what we are addressing.

Presentations by the Panelists

SHRI S.K. GUPTA:

When we are going to talk about reaching the next billion, we must first understand who are these next billions. They are a sizable but less affluent population spread mainly in rural and semi-rural areas, economically not so strong, young, with aspiring futures, maybe having a limited exposure to Internet or computer or the ICT applications. These next billion will demand access networks with enhanced capabilities and widespread applications and services of perceived utility, supportive regulatory and policy framework, collaborations across industry to support different applications, like e-commerce, e-governance, e-education, e-health, et cetera.

I would like to remind you that the first billion was achieved in 20 years. The second billion was achieved in four years. The third billion was achieved in the next two years. And I expect that this fourth billion will be achieved much earlier than that. CIA and Ernst & Young, in a very recent projection for India, have estimated that 40% of new subscribers will come from rural areas by 2010, and 60% by 2012. This

clearly projects what is the digital divide. And we have to work together to wipe out this digital divide.

Now, the questions which are of immediate concern are best-practice wireless in rural areas, reducing the cost of services provisioning, reducing barriers to acquiring telecom services, encouraging killer applications, friendly policy for allocation of the spectrum and encouraging infrastructure sharing to reduce the cost to provide services. This requires supportive IP network expansion, easy allocation of IP addresses, allocation of user-friendly numbers for IP-based services, content development in local languages and best-practicing different applications of common users.

In 2000, the Government of India declared the policy to increase the infrastructure to reduce the cost of service provisioning and announced infrastructure provider category 1. As per this, only registration is required, such people can require no license, and 100%, they can create infrastructure, like tower, nonpassive components so that it can be shared to provide the wireless services.

In 2005, TRAI also recommended sharing of passive infrastructure and also put a lot of emphasis on ensuring backbone network connectivity in rural areas. In 2006, with the help of USO fund, which collects from all service providers, a tender was given for 8,000 towers in different rural areas in 81 clusters, and most of these towers are getting ready by the end of this year. Another 11,000 towers in these rural areas were ordered in 2007, which will be ready by the end of 2009. Availability of these towers will ensure that wireless services can be rolled out in the rural areas much faster, and access is provided to all who want to get it.

In 2008, emphasis was again laid on infrastructure sharing and guidelines for active infrastructure sharing were also introduced. The government also developed a license fee for rural land line services so that this becomes more attractive and even land line services can go to the rural areas. National e-governance plans have already taken action to enhance applications useful to the subscribers to get a number of applications which bring more interest in the users. Now, the need is to develop cost-based pricing for sharing of the infrastructure, nondiscriminatory terms and conditions and clear policy work to encourage activity infrastructure sharing.

The challenges on the economic front are the high cost of the customer premises equipment, erratic power supplies in some of the rural areas and content development in local languages and of perceived utility. All this can be done with light legislation. That is very important, because we have to attract a lot of investment in this sector, and a stable, forward-looking regulation is a must. Promotion of the competition and technological neutrality are some of the concerns which are important. Cheap and innovative IP-based services are another important area. And promoting applications like e-governance and e-education will enhance the ICT for the rural areas. If you look into it, we are quite sure that we will be able to get the next billion.

RAJNEESH SINGH:

Access means a lot of things to a lot of different people. Allow me to call it the access ecosystem. If I run through a few things that come into my mind when I talk about access, they start from access to financial resources, to actually building systems or buying systems. Access to computing skills and education so that one may be able to use a computing device. Access to a lot of power systems which you need to run devices. You need access to a computing device itself, access to provision infrastructure, you need access to the Internet once you have the infrastructure. Then you need access to content to actually use the Internet for something productive. And then, of course, finally, you need to have access to localized content, which is more and more an important factor when we talk about the next billion and the next billions after that, because they will not be from urban centers. They may not speak the same languages that we have on the Internet at the moment, so there needs to be some emphasis on that.

Now, if access were a Bollywood movie, it would have two villains. One would be bandwidth, or speed. And the second would be the cost of Internet access for the average user. Who are the heroes? Well, I hope the heroes can be all of us, the stakeholders who are involved in the IGF forum, governments, private sector, civil society, NGOs, anyone who attends this. I hope you can all be the heroes in this drama called "access," so that we can actually make a difference.

If we look at some of the contributing issues that arise or pose issues around access, limited infrastructure and cost are predominantly the main ones which I have talked about. If you look at a typical developing country, you will see that there is very substantial network development in urban centers, but the rural centers always lag behind. And, of course, there are upstream costs. Usually the developing countries pay the most to be able to access the Internet. There are issues of demanding environments. Terrain is always an issue, particularly in Asia and the Pacific. There are issues with power. Power keeps going on and off. Then, of course, there are national disasters in areas like the Pacific Islands, which have a major impact on how systems can run.

We have rural and remote communities where economic viability to support these communities is always an issue. In developing and emerging countries, we have small commercial markets. There is limited consumer spending power. Then we move on to human resource issues. Often you will see that developing countries have issues with technical and skills management resources. Even if they do train up engineers and technicians, sooner or later they migrate to more developed countries to seek greener pastures. There needs to be a constant education process to see that the skills force, the workforce, does remain upto-date on what's happening. That comes at a substantial cost.

Building technology for productive use. Yes, you have the Internet, but you also need to be able to navigate the Internet. The Internet has a lot of things on it right now. Some are good, some are bad and some are absolute rubbish. But a user from a developing country needs to have the correct education to be able to

recognize threats on the Internet. They need to be able to understand what's good, what's bad. They need to not be drawn into phishing scams and issues like that. Then, of course, there are regulatory issues. I won't get into that. I think other colleagues on this panel will cover that in detail. And then, of course, finally there's always this thing called "political will" where we sometimes do not necessarily have the complete political will to actually effect change.

If we get it all right, what does it mean? There are a lot of opportunities that can arise out of good access: network expansion, more investment opportunities in infrastructure for the private sector, local and regional hubs which could actually help backbone traffic and transit services. There's content development, infrastructure and hosted services which could come out of it. Outsourcing. And, of course, there are new markets and businesses which could evolve. Take SMSs, for example. In the mobile world, SMS was not a primary design factor, but it has become one of the best revenue streams.

To close, let me ask you some questions. Are we maximizing what access we have available? Are we putting too much effort into high-speed access when we perhaps can look at some low-bandwidth solutions which are also quite useful in some instances? Are we perhaps too conventional in our thinking? Is there enough incentive to look for innovative approaches to solutions that solve access issues? Are we adequately supporting the research community and industry to make sure they come up with these solutions? Should there be greater support for noncommercial-oriented initiatives, like community networks, for instance? Do we need to have a regulatory scheme in place for them so that that can evolve and grow? And then, finally, how to encourage and, of course, implement the multistakeholder approach to problem solving. I don't have the answers to all of that, but I hope during the course of this week and this IGF and further IGFs, we can perhaps concentrate on these factors which are a bit more important than talking about access as an issue. We all know access is an issue. But we need to move to the next stage.

JACQUELYNN RUFF:

I'd like to very briefly highlight five key areas.

First, the point about wireless mobile Internet access as possibly leapfrogging and moving us forward for the medium on Internet access, I think, is critically important. That clearly raises the issues of spectrum allocation, technological neutrality, breadth of licensing. And we're seeing interesting things, for example, in Brazil, a consultation underway now to try to figure out how to use mobile technology to deliver 75% of the total Internet connectivity by 2018.

Second, for affordability, we need to promote competition in all parts of the connectivity chain: international, transport, gateways, domestic service, cable landing stations, and so on. And, again, we're seeing great steps forward, new submarine cables to Asia, between Asia and Europe. Hopefully, in Africa, those submarine cable systems which now have, I understand, contracts will become a

reality for backhaul and cable landing stations. Notably in the Philippines, they've introduced competitive backhaul, which will be very important to bringing down prices in that area. And for in-country competition, I think there's a trend of unified licenses, with a lot of flexibility. We see that in Kenya and other countries. In Colombia, in Latin America, recently, they moved from having three licenses, each of which cost \$150 million, to opening up that licensing completely at \$1,000 each. You can imagine what a change that brings.

Third, having the Internet exchange points locally really means the traffic can be exchanged locally and is also incredibly important to affordability. And the policy points there are explaining the value of this, developing the human capacity and expertise to make these really work locally.

Fourth, I think it's very important that we recognize the role of business users, whether large or small, in driving Internet supply, because increased Internet usage by businesses in the developing world will contribute to economic growth, create demand that drives supply, serve as an incubator for ICT models that can amplify that growth. Going beyond e-commerce to e-health, e-education and e-environment. And I would give NASCOM, the organization that Mr. Karnik led for so many years, it's an organization of IT large users and so on here in India, played an incredibly important role in supporting reforms in telecom services that were important to then developing the IT sector. So it's important from a policy perspective to have regulatory procedures, decision-making procedures that can provide input opportunities to all stakeholders, including business users.

Finally, we should keep in mind that voice over IP offerings have been some of the most successful Internet applications. So they bring the direct benefit to the users, but again, they drive demand which justifies the investment in infrastructure by businesses. And we're seeing more and more countries that are embracing voice over IP on a competitive basis. That's been a very interesting consultation right here in India, on trying to move in that direction, seeing some new regulations in Chile that will do that as well. So I throw out these as examples of some very concrete experiences that I think are out there, that we can exchange here at the Internet Governance Forum, and all learn from them.

The trends are actually very promising in terms of the amount of connectivity going to the developing world being on the increase, the usage being on the increase primarily in the developing world. The question is how can we redouble the efforts and build on the experiences that we share as the multiple stakeholders and really amplify the success that we're already seeing.

PETER HELLMONDS:

I have three points to make.

First, for there to be increased access, we need a sufficient supply and an effective demand and a functioning market that is competitive, because competitive markets have shown that they provide more choice to consumers, both for individual households and for businesses, and also for governments and NGOs. Competition

drives down prices, it increases choice and it expands access. And from a supply perspective, if we want to think about expanding the market, we need to realize we really need to drive down costs, provide for affordable access solutions, and that's something in the business world we call lowering the total cost of ownership. This may not sound much like this is an Internet governance issue, but it is. It's a key element in how the regulatory and policy environment structures the incentives in the market.

The second point is we realize that simply building the networks alone is not sufficient as there are other factors affecting demand, such as the awareness of people, their incentives, their motivation and their capabilities. That's not just an issue for the end users of the services, but also for operators and regulators and other players along the supply value chain. Even in the developed world, there was not just a simple "build it and they will come." It required a great amount of investment into awareness raising and into capacity building and into developing the applications that provide for those incentives and motivation in order for us to be able to drive up adoption rates. So when we look at building these networks for those at the bottom of the income pyramid, which is where many of the next billions of users are going to come from, we will need to target not just to lower the total cost of ownership, but we'll also need to think about those other soft factors. And the Internet governance issue here is the need to provide Internet governance capacity building to regulators and to governments.

The third point I want to make is that in addition to the increased coverage of networks and capacity building, the availability of applications that are adapted to the needs of the end users, including end users in rural areas, is key to improving the developmental outcomes – for example, in agriculture or in health care education, or in the efficiency of the delivery of market information or in the provision of governmental services to business and users alike.

In order to drive up demand, we also need to think about the customer premise equipment. And I think it was mentioned earlier that the price of customer premise equipment might still be high in relation to income in some countries. Think about perhaps using USO funds in one way or the other to support the buying of customer premise equipment. I know in my country, in Germany, a couple of years ago they made the decision to exempt ICT equipment, telecom, computers, Internet access, et cetera from tax. And those are issues one can think about to improve the capacity of people to use the services.

ALISON GILLWALD:

Many people have spoken about some of the policy and regulatory challenges that exist on the supply side and evidence of policy failure on the African continent. What I would like to discuss is demand-side evidence of policy and regulatory impacts on citizens in Africa. Many of these are as a result of poor institutional arrangements and poor governance. I think that's really the challenge from the point of view of the Internet governance, that if there are any lessons from telecom reform, it's that you cannot simply graft reform or governance around reform onto

existing governance systems. They have to be owned, they have to be developed organically. And I think if one looks at the sort of failures of market reform in telecommunications and the resulting high prices that they have produced, this is really because the reform model has neither become a market model nor remained a strong public utility but remained somewhere between.

I think if one looks at the importance of getting the correct institutional arrangements, it's about looking beyond simply a moment of flexibility where you have, from a leadership point of view or some other local political dimension, a positive development that would open up the markets, but that could change again at any time. It's about really institutionalizing those arrangements and ensuring transparent governance. Because without those you will continue to have the policy and regulatory risk that will not result in investment. And with the emphasis on markets and competition, if the evidence is so strong that competition produces these results, why has it not been done? If it creates demand and brings down prices, why hasn't it been done? That's really a political challenge; it's not an economic challenge. One has to look towards the governance systems and how one might reform those. As we look to strengthen markets, we have often compromised the strength needed in government and state in order to create enabling conditions for those markets, to create competent regulators that can create, for example, effective interconnection environments for people to come on board and offer services.

So if we begin to think about connectivity as a public utility-like power in the Information Society model, how far away from that are we in Africa?

We have very, very little penetration, if we are talking about extending existing fixed-line networks. Of that, it's primarily business. So the fixed-line network is not an immediate solution. What are the challenges there in terms of getting the necessary backbone buildout that we need in order to offer those services? If you look at the results of a household survey across 17 African countries, you will see even in terms of the willingness of those who do not have services to come on board, they cannot even meet the cost of line rentals. So until the issue of affordability is addressed, this is simply not an immediate solution in terms of broadband access.

Although there is a lot of excitement about mobile, many of the telephones in Africa are not enabled for Internet usage, and even if they were, very few people can afford to use them. Very few people can afford to use GPRS services, never mind 3G services. There is evidence of the fact that people are spending just under 20% of their income on mobile services. So until those mobile prices come down, all the excitement about mobile really needs to be treated much more jaundicedly.

When you look at the demand for Internet services, you can see that even with moderate price reductions you can bring millions of people online. So bottom-of-the-pyramid type business models really have the potential of lowering the cost of equipment and lowering the cost of services. They could bring down costs enormously and bring people online with various e-mail type options, if not full

broadband. In terms of more traditional notions of access and connectivity through the home computer, less than 3% of people have actual connectivity at home. Until you get these figures up, you simply don't get that critical mass that is required for the positive network effects to come into play. So we are way off those at the moment. However, there is significant awareness of the Internet, although usage is only at 15%. And that is happening largely through cybercafe usage, public access, through work and through educational areas.

So it really requires an enormous innovation around how we think about policy, how we create opportunities for access, wireless access, service neutral licensing that can cut through some of these barriers. These are a result of very often protected incumbents. And basically, without those kinds of adjustments to the policy environment and to the regulatory environment, we're not going to see anything like this vision of a sort of public utility connectivity that we need for an Information Society.

BRIAN LONGWE:

The first thing I would like to say is that Africans will tend to share resources. In rural areas it has been found that one phone can serve up to ten users. However, traditionally, tele-density has been used as a measure of access. In the past, Africa as a region has recorded extremely low fixed-line tele-density of below one percent. That is less than 1 line per 100 people. Believe it or not, this is still the case. Africa's tele-density is still at below 1%. However, when one incorporates mobile lines in the tele-density analysis, the results are not only incredible, they are actually amazing. As of 2007, Africa's mobile tele-density stood at an impressive 23%, or 23 lines per 100 people. There was a recorded growth in mobile users from 128 million in 2006 to over 215 million subscribers by 2007. This represents an annual growth of over 46%. As Mr. Kiran Karnik mentioned, in India there is growth of over 10 million phones every month. So in developing countries, I think mobile is actually the silver bullet for the access equation. Given the fact that most operators have rolled out GPRS and EDGE coverage across most of their networks, as well as deployment of 3G access across their larger markets, it's entirely feasible that mobile and not broadband might present the opportunity for increased access.

Another key element that is crucial to the growth of access in developing countries is a suitable environment, the dispersion of relevant content and applications that meet the day-to-day needs of the populace. Internet exchange points are the primary critical ingredient needed to create these conditions. By keeping all locally originated and requested traffic local, Internet exchange points serve a crucial role in enhancing the user experience, lowering operational costs and providing a suitable framework for the growth and development of the Internet in general. While many developing countries have adopted policies and regulations that encourage and promote competition in the mobile sectors, which has resulted in continued growth, the establishment of IXPs has received a relatively low priority despite the significant impact that such simple infrastructure presents to the community.

Access enhances the interface between government and the citizen at the transactional level. I will give you an example. The Kenya Revenue Authority last year suggested that the Kenya Internet Exchange Point receive critical infrastructure status with a 24-hour armed security guard due to the fact that 100% of all import/export declarations and documentation transit the exchange point via the revenue authority's web-based platform. Going back to mobile, another example of impact, Safaricom, a Kenyan mobile operator, introduced a money transfer service or a payment service called M-PESA less than two years ago. M-PESA now has over 4 million subscribers. Within one year, M-PESA has been able to sign up more users than Kenya's entire banking industry signed up in a century of banking. Safaricom reported that over half a billion US dollars have been transacted over their platform within 18 months. What are some of the key policy concerns? The financial services and communications regulators in Kenya decided not to subject M-PESA through treating their services as a bank but chose to perceive M-PESA as a nonbank payment service. That decision has today affected and continues to affect millions of lives.

Regulators can either promote innovation, access and development or hinder it. Kenya's communication regulator has completely opened up their communication sector, and this applies the same to many other countries in the region, including Tanzania, Uganda and Rwanda, by fully liberalizing every area. But providing structure through a technology-neutral, unified licensing regime that separates facilities, services and content, thereby spurring investments and providing investors with many different options in the different areas in which they can invest. In Kenya alone, over half a billion US dollars has been invested over the past two years.

My closing point is that relevant content drives demand, at the end of the day. We could build all the access networks we need, but unless there is relevant content for users to engage with, there will be limited access. Safaricom's M-PESA met a basic everyday need and this has driven the increased use of their mobile platform by touching the lives and livelihoods of both the rural and urban citizens.

ANRIETTE ESTERHUYSEN:

Thank you very much to Brian and all the other panelists. I am very glad that Alison asked the question that if we know what to do, if we know which regulatory models work, if we know which technical solutions work, why are things, in fact, not working? So I want to reiterate that question. I also think that there is an issue that we need to address, which is when we talk about access and filling the access gap, are we talking about creating more consumers of telephony and Internet services or are we also talking about creating citizens, creating empowerment, entrepreneurs, researchers? And I think something that is often forgotten in discussions about access in developing countries is the reality that the Internet is now shaped by user-generated content. The Internet is not populated by passive users who wait for other people to generate useful content. What has been responsible for the explosion in Internet usage and social networking platforms and multimedia is users

creating content that is relevant to themselves and those they associate with. And I very rarely hear people talk about that model in the developing country context. And will mobile phones, as handsets which create access for so many people, address that gap, or are we talking about a different divide, with more billions connected but connected in a lesser way and in a less empowered way? So I would like to you address that. I think the other point that it would be good for you to talk about is public access in libraries, access in educational institutions, research institutions. Is there still a responsibility for a public policy forum like this to look at the role of public access and how it can be fostered?

Discussion

FROM THE FLOOR:

I am from IT for Change, India. I wanted to draw the attention of the panel to the theme of "Internet for All" and its origin from the theme "Education for All," which is also a UN theme in the 1990 Jomtien conference. When we say "Education for All" or "Internet for All" there are two components to that. And I thought I heard the panel talk more on one aspect, which is reaching the next billion. To reach the next billion, you need to make sure prices are reduced, that markets are more competitive, that the governance systems are okay. But somehow I felt when you said "Internet for All," are you really meaning for all? When people talked about "Education for All," they were very clear they meant the last billion or the last mile. And traditionally development talk has always been about the last mile and not the next mile. So it's disappointing to hear the IGF focus exclusively on the next billion because the next billion is what the market will reach, but if you want to reach the last billion, you have to look at public investment, you have to look at public policy, you have to look at Internet being a public good just like education is.

FROM THE FLOOR:

Picking up on the previous question, the last problem of the developing countries and the villages, it is the best technology, is it the optic fiber? Or is it GPRS or is it WiMAX? What is the experience and what are the views of the panelists?

FROM THE FLOOR:

I work with the Uganda Communications Commission. I was particularly impressed by the presenter from India who talked about India building towers using the infrastructure fund. I was just wondering how these towers fit in the business plans of the service providers. I'm thinking of a situation where you might go ahead and build towers, and service providers may not have immediate plans to use these towers. And given the fact that the private sector tends to keep their strategies confidential to themselves, they may not want to reveal their plans in building out their networks to other parties. How do you handle this delicate situation?

FROM THE FLOOR:

I think that this idea of connecting the next billion is excellent, but it gives me the feeling that we're actually talking about the same thing year after year. And until we actually carry these goals to more tangible levels, I'm afraid that we're not going to be able to achieve any real progress. I'm from Latin America. I would like to see 100 million new users connected to the Internet in my region. At the same time, I would like that each community, each country, can take these goals to local levels. I think if we keep on talking about things in general to talk about connecting one billion people, without making a difference about where these people will be, for example, are they going to be in China, the Caribbean or in some other area of the world, then we're not really actually attending to the requirements and needs of the community. So I would specifically like to propose that, in my region, I would like to have plans drawn up to be able to meet a goal of connecting 100 million in the Latin American and Caribbean area, and I think this should be done by other regions as well.

ANRIETTE ESTERHUYSEN:

Can I invite the panelists not just to address the questions from the floor, but to one another?

SHRI S.K. GUPTA:

First of all, I would like to take the question regarding the infrastructure sharing. There are identified clusters where towers have to be created, and their locations on all these things have been fixed by the user. Simultaneously, user administrator also calls for the service providers who want to provide service in that particular area. And a subsidy is also given to provide services in that area. This particular service provider has been identified based on the subsidy required by them. And three such service providers are mandated to provide the services on these towers for five years. So tower manufacturers are not supposed to search for the service provider who will come and share with them. They will be identified. Subsequent to the five years, it will be the mutual agreement between the service provider and the tower person, whoever erected that. And this is working very fine in these particular areas.

I will also comment on one particular issue that has been raised – that none of the panelists are talking about the last billion. We are not talking about the next billion. We are talking about everybody who is there. And that is why emphasis is more to develop the infrastructure so that access reaches to everybody. And that is where our concern is, mainly on the cost of the device which has to come down so that each and every person can take that. Though, for a few people, there is the possibility to give some sort of subsidy from the USO fund. But that cannot be extended to each and every person. Therefore, the target of IGF, and particularly in the Indian government, is to reach to the last person and not to a few limited persons.

PETER HELLMONDS:

I would like to pick up on the question, is it the last mile or is it the next mile? I think when we're talking about the last mile, we're talking about how do you get from the tower to the person, or how do you get from how far you have built out the network until you reach the end user? And I think that ties in with a question about what's the right way of building out the network; is it better to use optic fiber or WiMAX? I think they're not exclusive. They are complementary.

What you find is that the mobile network is very efficient in bringing very quickly the network into the countries and into the regions, and, actually, also to the last mile. Because you do not have to dig up streets. You do not have to lay cable. You don't have something that can be stolen, maybe, and you just need to guard the towers. So WiMAX is a way of extending the reach of the wireless over longer distances. But in the end, if you want to transport Internet traffic and you want to increase bandwidth, even WiMAX will have some limitations of capacity. And the more users you are connecting, the more limitations you will find. In the end, you want to have a backbone. And the backbone today, the top of the line, is you go fiberoptic.

The nice thing is that you can put fiberoptic where people will not want to steal it. You can, for example, run it along high-power electric lines, because there's no interference between the electric and the optics. Before, when you tried to put a telephone cable next to high-powered energy line, you couldn't do it because of magnetic interference. You don't have that with the optic. And I think what we try to encourage is also for governments to encourage thinking across sectors. If you want to lay a national fiber backbone, where do you lay it? You probably try to figure out where's the next highway being built? Where's the next railway being built? Where do you put water ducts and so on, and make sure that when you dig up the street once, make sure you lay even an empty duct. If you don't lay the cable, but lay an empty duct, that way you can run a little robot through that pulls the cable behind. And these things, now finally in Germany, we got around that. The government encourages whoever builds out any kind of infrastructure to share information about where the next thing is going to be built, and to provide for operators and so on to say, "Hey, I would like to lay a duct, I would like to lay a cable while you're digging so to save on this extra cost." And I think that also will be a means to bring down cost.

ALISON GILLWALD:

I was going to respond to the point about which technologies will address the point of the last mile. I think with wireless technologies, we don't have to be as fixated with the last mile as we were before. But, in fact, what we need to be fixated with is the backbone that will enable the last mile, you know, to rapidly deployable wireless technologies. But the biggest issue there is actually creating the correct framework, so that I think we shouldn't really be talking about the technologies, because those will change, as we'll see. When you meet next, we'll be talking about another technology. What we should be doing is speaking about enabling licensing

environments, service-neutral licensing environments, regulation that would allow whatever becomes available to be deployed.

Now, what that presents is, of course, an enormous challenge to those who are required to invest in the backbone. And I think that's an area of discussion that we really need to spend quite a lot more time on. Over the last decade or so, we've been arguing that we should open up network licenses in order to get competition, in order to drive down prices. But in many countries, that hasn't happened. In fact, those countries haven't seen the kind of backbone investment that they would have liked, for a whole set of reasons, possibly policy and regulatory risk, but sometimes just because of smaller markets and those kinds of things. So the question becomes, how do you create or how do you incentivize the rollout of this backbone we need for the wireless to connect to? Are we talking about creating this connectivity utility in order for there to be public access for the next billion citizens to come online collectively or not? Is that something that is a public utility, but a privately funded one? Is it a public utility that the state now decides to put the money in and sells off at a fair price? I think these are the kind of models that we need to look at to see the necessary backbone rollout that we need in developing countries. It simply isn't there.

ANRIETTE ESTERHUYSEN:

I think what both of you are talking about is that there's in fact a set of very complex multistakeholder interactions and relationships that need to take place. And I think that we need to acknowledge that while competition works, on its own it's not going to achieve these complex interactions and decision-makings and planning. And I think human beings struggle to have more than one idea in their head at the same time, policymakers and practitioners. But that's really what is necessary. I think one of the speakers from the floor also mentioned this, we do need to approach the Internet as a form of public interest good. I don't want to be controversial and say I believe it's a public good. But even if you are from the private sector and you don't see it as a public good, you definitely recognize it as in the public interest.

PETER HELLMONDS:

I'd like to pick up on two things. The one is the competition argument, whether it alone is sufficient. Even if you don't do anything else, if you just introduce competition in the network provision and in the ISPs, we already increase access by a large amount. But if you complement competition or introduction of private investment with the introduction of an independent regulatory authority providing a certain lightweight regulation but clearly laying out the rules of the game – in combination, the research from The World Bank found that competition plus regulatory authority is mutually reinforcing the beneficial effects.

ANRIETTE ESTERHUYSEN:

I think Alison made the point that with innovation in technology, we can be more flexible and less concerned about what happens at the last mile, but what is

imperative is that there's an effective regional, national and international backbone to support that.

PETER HELLMONDS:

I saw a good example in an African country. And that's referring to the question, the private sector isn't really sharing their information. In effect, yes, that's part of the competitive game, you don't share your plans with the competition. But one of the African countries does have a good licensing regime, very open. And one of the customers we're talking to is building out a national backbone on optic fiber. And the interesting thing here, which ties into the question of infrastructure sharing and the question that Alison had about is it publicly owned or privately owned, is that he's a private operator. He runs the backbone, he puts the fiber across the country and actually wants to interconnect to the next country. And he's willing to say, "Look, I have enough dark fiber, whoever wants to interconnect and use the backbone, I'll sell you capacity on a purely commercial basis." But it is a workable model. And we have seen that in many parts of the world where there's a lot of backbone capacity that you can rent. So it doesn't need to be a public sort of ownership. It can be private ownership, but it can still contribute to a public good.

RAJNEESH SINGH:

I'd just like to pick on a few things.

Anriette, you mentioned the user-centric Internet. The Internet Society talks about the user-centric model or UCI. Can I just reiterate that that's a very important part of how the Internet evolved, how it developed and how it will continue to evolve and develop in the future. Someone also mentioned that today's content is all user generated. The word user comes in there again. So it's the user that's driving the demand for Internet services.

Now, having said that, Raúl mentioned the next billion and where are they actually coming from, that's a very important point. The Internet Society again has been making some efforts into holding regional discussions, and can I just suggest that the IGF, being a global forum, it's as important to move these discussions at the local and regional level so a bit more can be done. We cannot expect the whole world to turn up to an IGF for various reasons. If we are able to have regional and nationalized discussions of a similar nature, perhaps a little bit more can be achieved with a lot more participation, because participation is always an issue.

And finally, just I'd like to say that there's great power in a liberal ICT policy and creating an enabling environment. Recently I read about the XLD program. From what I understand, the catalyst for that development was when the Government of India deregulated the Wi-Fi industries. Now I understand it has something like 5,000 nodes. So just think about the power that is in having a liberal ICT or telecommunications policy and where that can lead us.

JACQUELYNN RUFF:

Just a couple quick thoughts. One is to reinforce the notion that we really do need to be looking at local conditions, so we can share. We should share all of these best practices, but they will need to be tailored very much to the local situation. Second, the importance of collaboration at the local level for all the stakeholders to get together and to do what we are doing, which is to identify gaps in services, show the value of greater Internet to the community, to users, promote and expand digital literacy, all those kinds of things, in addition to what happens at the broader policy level in terms of public policy that can motivate investment. And on that point, the balance to be struck, it will have to be local. It also has to be very careful because, as several speakers have mentioned, if you over-regulate, there will be disincentives to investment, and we'll get the opposite of what we want. There are many ways in which the collaboration can be done for the commercial reasons that we describe – for example, sharing of towers and so on. We see a lot of that in many parts of the world. So no need for government to micro-manage if that's actually happening for the greater good. And then finally, the use of ICT Internet for these broader societal purposes, somebody asked about. I do think we are seeing lots of models there. There are some workshops here that are addressing that, and this is a good topic to expand upon in this important multistakeholder environment going forward.

BRIAN LONGWE:

I will close with a slightly controversial statement. Internet governance capacity building for governments and regulators to open up their markets and embrace competition has largely been targeted at developing countries or developing regions. However, many of the problems that these countries face grew out of colonial policies and are sustained through dominance and control in their markets by developed country operators, many of whom achieved their market dominance during the colonial periods. Should there be Internet governance capacity building that targets the developed country governments and regulators around issues such as telecoms reparations similar to those precedents in other economic sectors such as the plundering of natural resources?

ALISON GILLWALD:

I just wanted to speak on clarifying the role of competition in markets. And so there is no misunderstanding, I think there is agreement in what one requires. I want to spend a little bit of time looking at the issue of competition that was raised and the point that was made that governments shouldn't micromanage the market, and certainly they shouldn't. I think what we are arguing is it's not that markets are not working in Africa but we don't have working markets. Because they are not fully competitive. And without effective regulation, you simply get a set of dominant operators extracting monopoly rents that will mean you will get rapid penetration. So initially with privatization, initially with competition, you will get a rapid takeup, but then it becomes saturated very quickly. We are not going to reach the last billion without innovative, transparent governance and effective regulation of markets. And

that's what we need to align to the Internet governance issues. The markets, the approach to the telecommunication market, to the backbone, are all issues very pertinent to Internet governance.

ANRIETTE ESTERHUYSEN:

Thank you very much. And I'm going to hand over to Mr. Karnik.

KIRAN KARNIK:

Just a minute or two to wind up by making just a few points which have emerged from these discussions.

First is that empowerment is critical, and that access is critical to empowerment. So the Internet is not just all about business. It is about empowerment and that depends on access.

Second, that access requires a number of factors, some connectivity factors, some affordability factors, but I want to reiterate affordability need not mean low-cost devices alone. Of course devices should come in cheaper. It's also about using existing devices like mobile or, very importantly, evolving new ways of providing access to communities, which means that ownership is not equal to access, or through new business models where access is effectively paid for by somebody else.

Third, that we need to look at both the demand and supply sides and critically put those into a development framework. A demand pull may be as effective or sometimes more effective than a supply push, but probably the two need to work together to see how we get there.

Next, the digital bridge is a possibility that excites all of us in this area, I'm sure, and we need to look at how the so-called digital divide can, in fact, be overcome by using technology for the digital bridge.

And finally, in terms of many of the discussions that were here, including the last billion or I would even say the last million, we need to look at something which may one day find its way into the Millennium Development Goals of the UN, and that is something that some of us have called the information tone, like the ring tone. Can we say "Information Tone for All"? Can we make sure that everybody today has information tone? It's not just connectivity. It's information, it's content that's useful, utilitarian, and something which can be used as they talk, not just vertically for governance purposes or to make sure they participate democratically, but people talk to each other, which I think is equally important.

Open Dialogue on Reaching the Next Billion

Chair : Mr. B. K. Gairola, Director General NIC, Government of India

Moderator: Mr. Hidetoshi Fujisawa, Chief Commentator and Programme Host, Japan Broadcasting Corporation (NHK)

Co-moderators:

- Ms. Alison Gillwald, Director of Research, ICT Africa
- Mr. Patrik Fältström, Consulting Engineer, Cisco Systems; Member, Board of Internet Society; Member, Swedish Government IT Advisory Group

Extracts from the Transcript of Proceedings

Introductory Remarks

B.K. GAIROLA:

Good afternoon, and welcome once again to this open dialogue session. We had two sessions in the morning. The first one was the multilingual aspects, and the second was access. Since this is an open dialogue forum, I would like to put a few questions, and then request the coordinator to start the discussions.

In the morning when we discussed, we had one issue that we need to have access, and also, in order to go to a billion people, it is necessary that we have language issues resolved. If you look at Internet, it is a caterpillar type of a device which has multiple legs. And unless all legs synchronize, it doesn't move properly. Both the language issues and the access issues are two of the legs. And there are many more to it. So the first point that we have been working on in India is to see how do we synchronize these multiple components that are required to make Internet go to a billion people. A billion people are of different type. They don't work in a common language. They use multiple languages. They don't have resources. They don't have the type of services they are looking for. And, therefore, it becomes important that we view the components in a single, unified matter. That's the first component that I would like to point out.

When we talk about integrating this and putting a synchronized initiative, the second issue that I feel is important is that we must have some sort of a common intervention. In India, we have been working for almost 20 years in trying to push the information and communication technology for the benefits. We found that unless the Indian government intervenes, industry has its own objective functions. It plays a very crucial and important role, but at times it does not orient itself towards the social benefits that are required. And therefore, in India, we are now looking that each of these legs that I mentioned to you has an intervention and initiative in such

a manner that industry and the government work together in a supplementary manner so that we are able to push the whole thing to a billion people. We hope that in about two years' time, we will have good enough implementation of the Internet into the country. The second issue that I wanted to point out is, when we work with the government for this initiative, the government people and political people always ask us, "At what cost? What time? And what is the sequencing that needs to be done?" And I think it's important that all of us would like to understand over a period of time how do we interface and get these.

HIDETOSHI FUJISAWA:

Thank you very much, Dr. Gairola. Now we'd like to start the session. I am Hidetoshi Fujisawa. I am the chief commentator of NHK Japan Broadcasting Corporation, Japanese public broadcasting. I have two other co-moderators here: Alison Gillwald, who is participating in the morning session on access, and Patrik Fältström, who participated in the session on multilingualism.

Reports from the Panel Sessions

HIDETOSHI FUJISAWA:

This open dialogue is intended to be an interactive dialogue which allows IGF participants to address questions and comments in relation to the two morning sessions, one on access, and one on multilingualism. I would like to introduce two rapporteurs from the morning sessions: Miriam Nisbet, who was the moderator of the morning session on multilingualism, and Anriette Esterhuysen, who was the moderator of morning access session.

ANRIETTE ESTERHUYSEN:

Even though we had panelists from the private sector, from civil society, and from government, there was a lot of consensus. I think the one key message is that access needs to be viewed in the context of an ecosystem. One cannot address the access gap without looking at various facets. So policy and regulation is one. And policy and regulation needs to be conducive to a certain kind of market structure that will encourage investment. Investment has to come not just from one source, but from multiple sources, from government, from the private sector. Affordability is part of the ecosystem. Having access to the infrastructure without that infrastructure being affordable is not going to address the access gap. Leadership is a key factor. Again, leadership is an important part of this ecosystem. It links to policy and regulation, to investment, and to capacity development as well. So all of these elements form part of this ecosystem. And to make it sustainable, you need a process of institutionalization. You don't just need a one-off policy reform process. You need policy-making and regulation, and regulatory institutions that can adapt to change that can provide continuity.

A second key message is that we still need to grapple with the issue of who does what. What is the role of the state? What is the role of the private sector? How do we collaborate and ensure complementarity, as opposed to working at cross-purposes?

The third point was that supply-driven models are not enough to address access. Demand actually exists already, and we can use development to help us understand how supply and demand can work together, articulate more effectively, and then scale. In access, I think there's been a tendency to look at pilot projects, to look at specific technologies, like mobile, for example. But if we're really going to address the access gap at a structural level, we need to look at large-scale initiatives.

A point that came across was that it's not just about adding more users to the Internet; it's about empowerment. It's about people relating to the Internet not just as consumers, but also as producers and as citizens. So looking at empowerment access has to result in more than just more people with mobile phones and more people with access to Internet content. And we also talked about the importance of user-generated content. And I think this links to diversity.

HIDETOSHI FUJISAWA:

Miriam, could you give us several key messages coming out of the morning session on multilingualism?

MIRIAM NISBET:

We talked about a number of aspects of what is a very complex topic, multilingualism. But when we talk about access and multilingualism it becomes even more complex and more interesting. Let me just mention five points that I think emerged from the morning session on multilingualism.

One thing we talked about is content and the importance of having content in local languages, that people must be able to create and receive information in their local language to express themselves in ways that their peers can understand.

The second point that we covered was the importance of localization and availability of tools. When we talk about tools, we talk about software, we talk about hardware. But we also talk about more complex aspects, such as the need for having in multiple languages search engines, browsers, translation tools. These are necessary if we're going to get to people being able to create content.

A third aspect of multilingualism that we talked about is the effort to internationalize domain names. That's something that a number of speakers have already pointed out the difficulties. The technological sophistication that is going to be required to get there is one thing. The policy aspects and the political aspects is another, an example being the Arabic Script IDN Working Group and how that model can be taken to other language groups, other script groups, to move that forward.

A fourth key point was that we recognize that, increasingly, online communication is occurring in mediums other than the written form. You all know that. But recognizing that we're talking about trying to address multilingualism in mobile and multiple media is something that has to be considered.

The last point is that we are concerned that there is not right now a common framework and a common language for addressing these issues. And that leads to a question for this group. And that is, what is it that the IGF can do to move these issues forward?

HIDETOSHI FUJISAWA:

Now I'd like to ask, what are the issues? What are the areas that seem to have general support in the discussion in each session? And what were the areas that need more discussion?

ANRIETTE ESTERHUYSEN:

I think that there was general consensus on the five main messages. I think that what we really have achieved in the IGF is a consensus that we need collaboration between different stakeholder groups. I think maybe there was a sense we need to do more to share best practice more effectively. But I think, generally, in access, we've really achieved consensus. I think we've managed to move away from either market-only or top-down driven models. I think we have an understanding that there's a need for changing market structures, but also for ensuring that areas where markets don't succeed are addressed in different ways.

I think maybe one point in access on which there isn't consensus is whether the Internet is a global public good or not. Often people from the civil society assert that the Internet is a global public good and should be managed in that way. People in the private sector would most probably not agree with that, even though they would support some of the principles that emerge from that. But I think that's an interesting issue around which there's still scope for a lot of debate.

MIRIAM NISBET:

I think that we have a consensus that multilingualism is important, that accessing the Internet in one's own language, in one's own script, is important. But we did have a little bit of disagreement, including a challenge from our Chair, who is concerned that even though it's important to reach people and address local languages, to build local content, there's still such a strong need for access and for building capacity for people to access in English. But one thing that I think everyone would agree to is that there's still, throughout the world, an enormous need for building capacity among users for digital literacy, for being able not only to access information, but to be able to understand what to do with it and how to use it once they get there.

Discussion

HIDETOSHI FUJISAWA:

There were those areas in which you have agreed, and there were areas in which you don't agree. We'd like to deepen those discussions further in this dialogue.

ALISON GILLWALD:

There was a question from the floor that says getting to the next billion is not about liberalization, but the form of liberalization, not about freeing the market, but harnessing market power to this end. The question, then, is what form of liberalization is needed? How can market power be harnessed to this end? And is this enough to ensure access to rural and poor communities? We also have a question which says, can you share the impact of Internet usage and penetration based on regulatory changes and competition? How can the cost of access be reduced through these? So perhaps we could get some input on some of the regulatory requirements or the liberalization sequencing that's required, or the need for independent regulation to ensure the access issues and affordability issues.

FROM THE FLOOR:

The importance of independent regulation cannot be underestimated. I say this particularly because of the experience we have here in India. We have heard time and again about what a phenomenal amount of progress has been made in telephony in terms of mobile penetration and so on. We do have 10 million mobile connections being added on per month. But the sad truth is, when it comes to Internet connections to homes, after ten years, we have about 10 million connections. After ten years. And it's still not growing. This is primarily because of the kind of policies that were followed where there was no balance between telephone companies and ISPs. The Internet service provider industry in India has effectively been killed. It's the telephone companies who also do some level of Internet penetration. This is not the way forward, because Internet telephony as a platform is so limited in India today that the march forward to unified communications is getting crippled. It's all about voice, not about Internet. And it's because we don't have independent regulation, it is all vertically aligned to voice services. And I think this is a good example of what not to do going forward.

ALISON GILLWALD:

I want to address the question of the form of regulation. The point about ICTs, whether it's Internet or telephony, is that they're not like normal consumer items. What the final consumer gets is the result of several layers, at least four or five layers, in a highly complex industry. So what you need is a form of liberalization that is going to take into account the complexity of the sector itself. And that means liberalizing the layers in different ways. And there's no simple solution in different countries. So it is a much more complex form of liberalization than sometimes we hear people talking about.

Sometimes in industry, we hear people saying, "Just allow us to do what we want to do and things will happen." That's partly true and also partly not true. Are we trying to harness markets in order to produce a positive end? I believe the answer to be that we have to harness markets, because free markets on their own cannot achieve what has to be done. Examples of harnessing markets are things like creating a universal access fund, because what you're doing is putting an expense on the market with the justification of recycling it back to address the wider issues of the next billion. On top of that, I think it's been shown quite clearly that in things like fiberoptic backbone in rural areas, the market alone is not going to achieve it. The World Bank has concluded this with regard to Africa. India is a superb example of using what might be a faulty mechanism. Nevertheless, they have succeeded in rolling out a huge amount of fiber backbone in a relatively short period, backbone that now means that they can provide not simply a mobile telephony solution, but in my view, a much better solution, which is one that in the long term can be a lot cheaper than the mobile solution and provide a lot more functionality.

FROM THE FLOOR:

It is very important that India has an independent regulator. That is the cause of success, especially in the sector of mobile. When we are talking about being very successful in one particular field and not in another, we have to look at the complete environment in a way that things are happening. The regulator has come out with a consultation process very recently, has given the recommendation on Internet telephony, offering Internet telephony to a very great extent. A number of other initiatives have been taken, especially to create the infrastructure, to auction the spectrum, to create a lot of applications, killer applications, in the rural areas. And I will give you some more things which are likely to come up, like all the villages are being marked for communication with some e-mail addresses. Anybody where you are not able to send letters, in time, you can send through e-mail, and one person will access and can translate the particular thing to the local language and hand over to the other people. This is one example. Similarly, the local people can send the messages using the e-mail to other people. This is one example. There is the example of e-education, there is the example of e-health. I would like to emphasize regulatory is very active, very independent and working for suitable provision of access in different areas.

FROM THE FLOOR:

I work for Afilias, the service provider for dot IN, the country code top-level domain for India. In 2005 the government of India liberalized the dot IN domain name. This changed some of the fundamental rules underneath the dot IN domain name. The results of that are quite dramatic. In 2004, December, there were 6,000 domain names in dot IN. There are now over 500,000 domain names in dot IN. It came about with a light regulatory touch, it came about with the cost of the domain name going down. It was reduced to a third of what it used to be. But it has also come about because it aided the creation of a brand-new marketplace for domain name registrars that did not exist before. And that marketplace has led to job creation,

revenue creation, as well as a robust new marketplace. And that is an example of something that has worked. If some of the other barriers are removed, the next billion Internet users could be right within this country.

FROM THE FLOOR:

I am the general manager of the African ISP association. And I would like to make a point specifically referring to one of the previous comments about mobile operators overshadowing the conventional or the traditional ISP. This is an issue that we have been looking at for several years in Africa. I have run, personally, ISPs for about 11 years, and the ISP association in Africa has been in existence for about seven years. We cannot ignore the fact that in almost every single country in Africa, the mobile operator has more Internet users or Internet customers than any single or even combined ISPs within a particular market. It is a reality that we have to face and deal with. Convergence is the future. It might be the mobile operator today. It could be a different actor tomorrow. The key point is for us not to fight each other but to embrace one another in terms of being able to achieve the goals of access and coming up with innovative and creative ways of using whatever infrastructure, be it fixed, be it wireless, be it mobile, or be it light tomorrow. We don't know. We have to adopt and embrace every single option possible to be able to reach the next and the next and the next billion.

FROM THE FLOOR:

To know how the Internet can be made accessible to all, especially in rural areas, we have the issue of universal service. The Internet, in most regulatory frameworks, is not actually part of universal service. Communication is basically only through post office or by voice. Internet is not even considered. So that's the first issue we have to consider. And I believe that most operators need to realize that it's in their interest to have as broad a market as possible. But in Africa, many of the peoples are concentrated in cities. So the rural zone is not a market people look at so much. So often there is not access provided in rural zones unless there is a political will. And political will needs to make sure that access is provided as a development fund to provide the infrastructure, and so that the people have the means to access even if there's a minimal profitability to these operators. So I think that's the largest problem now for regulators to find some agreement about. So the issue now is, do we want to have large capacity for the territory or two speeds, high bit rate in urban city areas and rural areas would have a low bit rate? Now, there are some innovative strategies available to help us with this. Some operators have determined that there are specifically rural markets that they would provide a license to with specific access conditions in place for wireless, WiMAX, CDMA, et cetera, in order to provide high bit rate access for them.

HIDETOSHI FUJISAWA:

Okay, any questions and remarks which have been presented from the floor? Could you introduce them, Alison?

ALLISON GILLWALD:

I think the interesting thing that has come up is the tensions that exist from the policy point of view between getting investment in networks and necessary incentives for that and creating open access networks. So the tension that exists between traditional telcos and ISPs is really one that needs to be confronted from a policy point of view. At the moment, we pretend we are doing everything for everybody and kind of falling between two stools. And it's not just mobile and fixed platforms that are converging, but particularly in the African context, the possibilities with traditional broadcasting or non-traditional broadcasting networks as they go digital.

I think this raises some interesting questions, both around the universal service questions which have arisen there, and the question of tiering services. How acceptable is it to have these different quality tiers of service around access for rural and urban areas? I think politically that's a very difficult thing for governments to manage. Hence, universal service funds in order to create quality services between the two. So there are some questions about who funds that. And particularly, is the IGF able to be a mechanism or a forum to facilitate funding of broadband in rural areas?

There's a question around what billion are we talking about. Are we talking about the next billion or are we talking about the last billion? It seems as though we are speaking about the last billion, whereas in fact we haven't dealt with the issues of the next billion. And I think perhaps if we could get some input on that, I think that does go to the question of creating market efficiency to deal with that pent-up demand for maybe the first billion, and then possibly dealing with market failure issues around the last billion and how we get access to those at an affordable rate.

HIDETOSHI FUJISAWA:

Dr. Gairola would like to speak about whether it's the last billion or next billion issue.

B.K. GAIROLA:

I think this question is very difficult. It all depends upon from where you see. If you want to see from the industry perspective, you know the next billion is the easiest to get. If you look from the government's perspective, the last billion is more important. But the problem that one finds is the last billion and next billion are not going to be on different infrastructures. The infrastructure will remain the same. So what will happen is certain investment is going to come from the industry, but that doesn't satisfy the government. So therefore while the investment on the next billion may come in a fairly good amount from the industry, the investment on the last billion will have to come from the government. So my feeling is it is both that we want to attack. One will be done by industry predominantly, and the other by the government integrated.

HIDETOSHI FUJISAWA:

Thank you very much. Could I invite some comments from the panelists from the morning sessions?

FROM THE FLOOR:

I think we have already talked about this particular issue, about whether it's the next billion or the last billion. I think the very important issue we get is whether we are going to subsidize from the USO a particular service to be provided in a particular area or provide even the last billion connections. In India we have already incorporated Internet in the USO fund and therefore expenditure from the USO fund is also being done to provide services in the rural areas. Now, optical fiber connectivity, creation of the infrastructure, creation of the applications and firsthand information to the role of people who are not aware about the Internet and the advantage of this combined together will drive people to connect to the Internet and go along up to the last billion. That's the plan we are looking for.

FROM THE FLOOR:

I feel a little bit uncomfortable about the way we are talking about the next billion and the last billion. The next billion, I think what we are understanding by these words is the billion that can be reached by markets. And the last billion, we are talking about those that have to be reached by public policy because otherwise they would be excluded. And that's not really a separation that we should do. The Chairman already pointed out that in terms of using infrastructure, it's the same. And what we should aim at is the next billion should be a mix of the two groups. And public policy has to do with both parts. One part has to do with better market regulation to make the market forces work well. And also, public policy has to do with the other part of including those who have not been included. So I propose that when we talk about the next billion, we include both the excluded or in risk of exclusion and also the ones that will be touched by just a better market.

FROM THE FLOOR:

I am with the Corporation for National Research Initiatives in Reston, Virginia. I would like to step back and ask you to take another cut at what the next billion people will be. What I would like to look at and focus on is an enabling environment for children, because they are another group of new users. I have been involved in some research projects on advanced distributed learning environments. I've also been working with digital library development. Now, to have a welcoming environment for children where it is easy to use, interesting, and perhaps improves on the learning that they then have in their schools would perhaps get them working on the Internet and contributing eventually to the improvement of the Internet for other people as the years go forward. So that's the next billion that I would like us to talk about as well.

HIDETOSHI FUJISAWA:

Thank you very much. I believe that access and multilingualism are very closely related and now we are touching on the issue of multilingualism and diversity. Are there any questions from the floor?

FROM THE FLOOR:

I'd like to establish a link with what you just said a few moments ago and with what was said this afternoon. I represent the World Network for Linguistic Diversity, called MAAYA. It's a multistakeholder, multi-actor organization which works specifically in the area of linguistic diversity. And in this discussion of Internet governance, a group which has not been included enough to date is precisely the linguists. They are not involved in the discussion about multilingualism and linguistic diversity. Their work is not just for translation and interpretation but also scripting. So it's important to have a dialogue between the technical experts and the linguists. Please think of the linguists and include them in discussions that take place in future on this very significant issue.

PATRIK FÄLTSTRÖM:

To connect multilingualism with access, we have got a number of interesting questions here which we would like to hear your comments on. If it is easier to create local content, will that also attract more local users? If it is the case that we create more local exchange points, which means that the actual user experience to access local content gets better, will that help the interest and growth of local content? If it's faster to create content in English on a server in the US than to create content locally on a server locally, will that have an impact on the amount of local content that's created?

ANRIETTE ESTERHUYSEN:

I think there are different ways of dealing with multilingualism and with content, and some of them have to do with creating an enabling environment. But I think access is the most fundamental driver. If more children can have access and create their own content in multiple languages, it will transform the Internet. And I think it's already happening, if you look at social networking platforms, like Orkut for example, which has exploded in Brazil. I think users are enormously powerful and I think content exists. I think poor people have content. Non-English-speaking people have content.

I want to add another question, and that is about open standards and open source in the context of diversity. Do people feel that that is one driver for diversification and creation of content in multiple languages?

FROM THE FLOOR:

I'm from India. We have 15 official languages. India is, in fact, very much like the European common market. Each state has its own ethnic group, language, culture,

et cetera. So it's actually a conglomeration of different ethnic groups who all have their own languages. And a good indicator of how these languages are doing is newspapers or magazines. And in India, the most widely circulated, the most read publications, are in the local languages, not English. There are only about 100 million people who are really proficient with English. If you take, for example, where I come from, the leading newspaper is *The Hindu*. But if you take the leading Tamil newspaper, it has a far wider circulation. And many of those readers also read *The Hindu*. So the primary language is the local language. And in our experience in creating our portal in six languages four years ago, is that if you create the content in the local language and make it available, people will come. So it's a question of making it available. Of course there are challenges. We know that. There has to be a Unicode standard. There has to be a standard keyboard and all of that. But if you create the content and make it available, language users come on.

HIDETOSHI FUJISAWA:

Thank you very much. Are there, in the audience, participants from China or from any country in Africa where there are many local languages?

FROM THE FLOOR:

I'm from the Embassy of the People's Republic of China. We have multi languages. We believe that the focus for languages is local development. If we only have access for the people without providing the opportunity for development, the people will say why we do we have to pay lots of money to buy a computer and software and there is nothing to do with the daily development? We don't need it. So we must create an environment for the local people, so they can find the jobs, so they can use the Internet to stimulate development in the local area, so, therefore, the people, they have incentives to use the Internet.

FROM THE FLOOR:

I'm based in Jordan. I want to reply to Patrik's question, which I think he said correctly that there's a good connection between multilingualism and access. In Jordan, most of the Web sites used to be hosted on US servers. Now, most of the companies host their Web sites internally. This happened when we had more access and more competitive access. Before, the problem was mainly prices. The link to get two or four meg used to cost thousands. Now it's much better. So the answer to Patrik's question, I think, is yes, if you host your own Web sites on your local servers, you will push more to have more local Web sites in your own language, like Arabic, for example. Because when you host it in US, for example, sometimes the software and the tools only accept Latin or ASCII. So you will have problems.

FROM THE FLOOR:

I'm from the African ISP association. The question has been asked, what is local content? And rather than answer it, I'd just like to mention that there are probably

two imperatives with regards to local content. One is new and innovative ways of using the Internet in a locally relevant context, which none of us know today what innovations will come out tomorrow. Some examples of these include the M-payments and the social networking that have already been discussed. However, the other and probably the most crucial is moving other existing forms of information and content, especially transactional data, onto the Internet platforms that we know of today. And just as an example, there's an application that was developed in South Africa called MXit, which basically allows the sending of up to 50 messages on a mobile phone at the price of a single SMS. And this has seen an incredibly huge uptake amongst the teenage population in South Africa. This is just an example of the way in which innovation can be able to use the existing access platforms and include a previously excluded category of society. The children were not able previously to afford everyday common use of this, because they have very little pocket money. But now, with their very little pocket money, they are able to communicate and interact much more effectively through the innovation that this particular application has given.

FROM THE FLOOR:

I'm from the DAISY Consortium, working as the coordinator for developing countries. One major issue of local languages is if the content that we are putting on the Internet is really complying to convertibility. Because the people who are going to use the content are not going to use it only in one way. People perceive content in many different ways. So there is a very important aspect of content, whether it is convertible to different formats, to different medias, or not. Today, we have seen this example, that we are saying that if this audio which is being spoken is not getting translated into different audio, those people can see it on the screen being transcribed. This means that there are a lot of people who are comfortable in looking at the content rather than hearing it. There's simultaneous conversion happening to the content here, which gives access to the content to as many people as possible. So that is one very inherent quality of content which we need to ensure, which would actually help us bring Internet to the next or to the next billions of Internet users.

FROM THE FLOOR:

I represent the International Federation of Information Processing. I believe that local content should be in line with the true needs of the people and not in line with needs created in line with the logic of the market. So when we say that we have to protect content, production at the local level, we first have to know what the needs of the people are. And we should study these needs before saying that we have come up with some things that may be used by the populations. I would like to insist on this fact, on the need to actually know what the needs of the people are and ask them, and we'll see that people's needs differ from one place to another.

FROM THE FLOOR:

On the issue of content in multiple languages, the previous speaker raised the issue of usability of the content. And the speaker before that raised the issue of convertibility of content between different languages. So the concept of semantic Web is also coming up. The knowledge content of the Web should be able to be represented and translated into multiple languages by the use of semantic Web, by converting the Web page content into a kind of knowledge representation in frames which can also be converted to other languages. So this should be the other solution possible for knowledge utilization and translation within multiple languages on the Web.

HIDETOSHI FUJISAWA:

I think we have been hearing very interesting comments and remarks.

PATRIK FÄLSTRÖM:

Yeah. There is one comment that has been returning three times here. And that is to point out that when talking about multilingualism, we don't only talk about written languages, but also that people communicate in voice, pictures, et cetera. So converting and creating those conversion tools for voice and other kinds of translation might be even harder than the textual multilingualism that we normally think about regarding the Internet.

ALISON GILLWALD:

I have one last set of questions that seem to be people wanting to make comments on the notion of the Internet as a public good and of connectivity as a utility. We have Peter Hellmonds from this morning's panel. Perhaps he would like to do that.

PETER HELLMONDS:

On the question of the public-good nature of the Internet, I think it's important to distinguish between the public-good nature of the Internet and the ownership of pieces of the Internet. And I believe we from the private sector and from the business community believe that the ownership can very well be in private hands. Parts of it could also be in public hands, as the Internet is a network of networks. So even the governmental intranet, if it's connected to the big Internet, it's government-owned, but then it would be part of the big Internet. I think the public-good nature of the Internet comes from its interconnectedness, from the end-to-end principle, from the ability to be innovative at the edges. And the ability to allow anyone to get online and get connected, those are the public good aspects and the nature of the Internet. But it doesn't mean that a public good is also public property in the sense of ownership.

HIDETOSHI FUJISAWA:

We have a question about the role of IGF. The question is as follows: "Can IGF be used for exchange of experiences regarding, for example, how can Denmark be in

number one place in OECD member status? Can IGF help creating several groups as the Arabic Script IDN Working Group? Can IGF help facilitate funding of access?" Does anyone want to respond to this question about the role of IGF in enhancing multilingualism and access?

FROM THE FLOOR:

I am from Denmark. You mentioned that Denmark has the highest penetration on broadband. And, of course, we can share the information on how we have done that. And what I will emphasize is that we have chosen a market-driven approach. So it's private investments in order to get access to the Internet and broadband. Of course, to have investment there, you've got to have regulatory framework. And we have talked about regulation. And a regulatory framework is not only independent regulator; it's part of the regulatory framework. You've got to have regulatory stability, and you've got to have regulatory transparency. That is quite important. So regulatory certainty is important. And you have to have a proactive way in order to facilitate regulation, not have detailed micromanagement, but have a competitive attitude toward that. In Denmark, you don't even have to notify to the regulatory authority in order to have quick access. But also, as a regulator, you must choose your tools and change them. In the beginning, we attached great importance to service-based competition. But service-based competition is only to start the process. In the longer run, and what we are focusing on now, is to have facility-based, infrastructure-based competition. And it's important that you have different infrastructure. You might have cables, you might have normal telephone lines, you might have fiber. But wireless and mobile, that is important. As many infrastructures, the better the competition.

But looking on governments' point of view, well, the Internet and access to that, the access is not important in itself. But what can you use it for? And, of course, there is a lot of private content there. There should be much more government content there. There should be many more e-government services. We can now see, and which has also been touched upon, is that there's user-generated content to a large extent now. And there's more peer-to-peer. That's why the access to the Internet is not only the speed that you download, but also what you can upload. And I think we should have focus also on that in the future.

The last thing that I will touch upon is that it is the skill. It is the e-skill which will be important. And we can see even in Denmark, where the population have a high degree of education, there's still a lot of people who are not able to manage a computer and the Internet. So what we should be looking at in the future in order also to have the last billion people is already now to look at the skills. It's not necessarily e-inclusion, it is not necessarily elderly people, but also young people.

HIDETOSHI FUJISAWA:

Thank you very much for explaining about the Denmark case. But can the market-driven approach work anywhere in the world?

PETER HELLMONDS:

I wanted to pick up on one of the questions here regarding whether the IGF can help in the financing. And then the market-driven approach I can try to tackle.

I think, first of all, we need to sort of correct a misconception about what the IGF can achieve. The IGF has no money. The IGF Secretariat is supported by donations from a couple of donors, and is very low key. So you cannot get money from the IGF. And if that is the purpose of the question. However, I think what we have been talking about in terms of how to get access, we have been talking about certain ways of how you could do it. And I think what both my colleague from Verizon, Jacquelynn Ruff, and I have mentioned is that, if you set up a regulatory regime, as described by my colleague here from Denmark, lightweight regulation, as minimal as necessary but as effective as necessary, and you allow the private sector to provide the networks and the access and provide the training and so on, then you have a chance to create the right incentives in the market that the private sector will find the money, and they will do the financing. But I think you really need to think about creative approaches to set the right incentive structure. And if you create disincentives and if you create lots of red tape and bottlenecks, then you will not get financing in the market. The private sector will be a rollercoaster, probably, until the financial markets have somehow settled and adjusted. But in general, the private sector is able to get any number of financing that is necessary if you have clear expectations of being able to make good use of your investment and get some returns on the investment. So that's the question of finance. And the question of market access, perhaps someone needs to refresh my memory about exactly what that question was. I can pick it up again.

HIDETOSHI FUJISAWA:

I asked whether the market-driven approach can work anywhere. Denmark is a very market-oriented—

PETER HELLMONDS:

Anywhere, yes. The short answer is yes, and the little bit more extensive answer is yes, if you set up the right environment.

HIDETOSHI FUJISAWA:

What is the right environment?

PETER HELLMONDS:

What the right environment is? I think I just outlined it. You basically want to set an incentive structure where private sector participants can do what they want to do. It doesn't mean completely free, because you might have one who wants to buy up the whole market, be a monopolist, and you would have less in terms of the quantity and you would have higher prices than necessary. So you want to introduce competition, sufficient competition that, really, you are reaching the efficient

intersection between supply and demand. And you want to increase incentives that companies innovate to bring down prices and so that you can have expanded access there. So that's the kind of incentive structure. The regulatory system and environment, the licensing. The availability of spectrum is also part of it. And I think right now, there are a couple of issues in Europe, for example, when we go into digitalizing TV, we realize that this frees up quite some spectrum. And the question is, we call this digital dividend, how do you distribute the digital dividend? Do you auction it off? Do you reserve it for more TV broadcasting? Or do you say, "Hey, we have some spectrum left over. We can expand access by doing the right thing"? So, there we go.

HIDETOSHI FUJISAWA:

Okay. Thank you very much, Peter. There's one question posed to Dr. Gairola. Could you read the question and answer the question?

B.K. GAIROLA:

The question is not really for me. It is for the honorable Minister. And the question is that, basically, should public libraries be connected to the Internet? The answer is yes. In the speech, the honorable Minister mentioned we are setting up what is called a National Knowledge Network, and the idea is that this knowledge network is a multi-gigabit – multi tenths of gigabit backbone – which will cover approximately a thousand locations. And the idea is that we should be able to connect most of these libraries using that system. The limiting factor there is the reach and ability of the telecom service providers to be able to get the link. But as far as the plan is concerned, the next 24 months, that system should be up and running. I think that's all that I would like to say because it's the Minister's question. Beyond that, I think he is the one who should be really answering.

HIDETOSHI FUJISAWA:

I would like to ask Alison and Patrik to wrap up this session. How do you assess the session?

PATRIK FÄLTSTRÖM:

Maybe two very brief comments, building on what was said about the private sector. I think the concern is how you make sure that, where there is no market incentive, people are not left out. And for that, maybe one thought. What has been done very successfully with the Grameen Bank in Bangladesh maybe should be connected also to this discussion and connecting the next billion, or the last billion.

In a multilingualism point of view, what I remember from this is that people pointed out that multilingualism is definitely not only written language; it has a lot to do with access and creation, because the next billion users should definitely not only be listeners but also speakers. Creation of local content and management of local content is important. We also have heard several discussions of what is local content, and I have not heard anyone mentioning, which I personally think is a good

thing, that local is geographically local. It's culturally local or language local or script local. And I think that is something which was not said but I think between the lines, that is what I heard, specifically when the Internet goes more global

ALISON GILLWALD:

Perhaps one of the main things that came out in terms of connecting the next billion, which is the theme for this session, is that we are talking about the next billion in terms of pent-up demand which has to happen at the same time as addressing the last billion. I think the strong sense came through that you cannot address one first, sequentially, but that you have to address both at the same time. And currently, our inability to provide affordable access is because of existing barriers in many of our countries in terms of market entry. I think the point was also made, though, that despite liberalizing markets, it was very important how that was done. And it wasn't simply a matter of opening up markets. Very often with infrastructure industries, you cannot get the kind of perfect competition that will allow for the efficient allocation of resources, and therefore you need a regulatory framework that will provide certainty and stability, and also incentives for investment. But that public policy framework in which the regulatory framework exists needs to address public policy issues around market structure and competition and regulation, but it also needs to address issues of market failure and questions of universal service and of ensuring equity between urban areas that have access and those that don't. So clearly there are a lot of challenges to connecting the next billion but there are solutions if we address them.

HIDETOSHI FUJISAWA:

I would like to ask Dr. Gairola for the final closing remarks.

B.K. GAIROLA:

I must thank the participants for having contributed immensely in the dialogue and the discussion that we have. I must thank my colleagues here who have been so amply prepared for answering the questions and preparing the questions. And I think I would at the end thank you all to ensure that the deliberations and discussions that we had will have some kind of documentation prepared.

Reports of Workshops, Best Practice Forums, Open Forums and Dynamic Coalitions

Realizing a Multilingual Internet

WS 4: Internationalized Domain Names

Speakers: *Chris Disspain (.auDA); Hong Xue (APRALO); Manal Ismail (Government of Egypt); Patrik Fältström (Cisco Systems); Ram Mohan (Afilias)*

The workshop aimed to discuss myths, challenges and opportunities in IDNs from technical, policy, business, as well as user perspectives. Discussions revolved around IDNs' technical considerations; experiences and challenges faced with languages/scripts that are used in India, China and the Middle East; variant tables, why they are important and why registries need to develop policies for registering IDN strings; opportunities that IDN will create for end users as well as business especially in communities where the majority of users do not know English.

Dynamic Coalition for Linguistic Diversity

This session, organized by Francis Muguet, focal point of the coalition, was chaired by Pietro Sicuro (INTIF/Francophonie) assisted by Viola Krebs (ICV).

The following presentations took place during this session.

- Terminologie Multilingue – Multilinguistic Terminology, Louis Pouzin (EuroLinc, France)
- Linguistic Diversity in the Cyberspace of the Russian Federation, Tatiana Ershova (Institute for the Information Society, Moscow, Russian Federation)
- Le Cameroun : retour d'expérience d'une Toile bilingue – Cameroon: Lessons Learned from a Bilingual Web, Michel Tchnonang ([CAPDA](#))
- Languages in the Indian Cyberspace, Rajesh Aggarwal, NIXI (National Internet Exchange of India)

During subsequent discussions, the coalition decided to follow the recommendations concerning cyberspace from the Bamako Action Plan resulting from the Bamako International Forum on Multilingualism, Bamako, 19-21 January 2009, organized by the African Academy of Languages (ACALAN), within the framework of the MAAYA network, in partnership with the Republic of Mali, the Bundesministerium für Unterricht, Kunst und Kultur (Austria), the Spanish government, UNESCO, the Organisation internationale de la Francophonie (OIF) and Union Latine.

The coalition adopted the following recommendations to be brought to the attention of the Internet Governance Forum:

- Write a training manual in several languages informing the general public about the stakes related to the presence of languages in cyberspace, following the pathway of the book *How to Ensure the Presence of a Language in Cyberspace* by Professor Marcel Diki-Kidiri, published by UNESCO.
- Create the legal and methodological conditions to encourage the use of local languages in public administration, particularly at the municipal level.
- Enable, continent by continent, the identification of technical and human resources in all languages spoken in the world, as well as a census of languages that do not benefit from technical tools for their inclusion in cyberspace.
- Raise awareness, through campaigns among professionals of all languages, of the challenges of the digital inclusion of languages and their presence in cyberspace.
- Motivate the creation of synergies between the various observers of multilingual use over the Internet and encourage ethical use of linguistic information.
- Encourage participation of locutors in all languages in decision-making processes about protocols, standards and other technical tools to ensure the inclusion of all languages into the digital world.
- Create training tutorials for the general public on content creation.
- Create a multilingual site for centralizing free and open language tools.
- Encourage, through funding or volunteering, localization of free software and open source code for Internet operations as well as linguistic functions.
- Implement specific recommendations included in article 53 of the WSIS Tunis Agenda.
- Advance the process for the introduction of multilingualism in a number of areas including domain names, email addresses and keyword look-up.
- Implement programmes that allow for the presence of multilingual domain names and content on the Internet and the use of various software models in order to fight against the linguistic digital divide and ensure the participation of all in the emerging new society.
- Perform multi-disciplinary research and experiments in order to implement namespace classes (RFC 2929) for information networks in the cyberspace, to the effect of a building a semantic Web, empowering a dialogue of languages and civilizations.
- Encourage and support development of free software, such as translation tools, to allow for a global and inclusive multilingualism in cyberspace.

Access

WS 2: Challenges Facing Internet Operators in Developing Countries

Co-organizers: AFNOG (African Network Operators Group); AfrINIC (African Network Information Centre); APNIC (Asia-Pacific Network Information Centre); ARIN (American Registry for Internet Numbers); SANOG (South Asia Network Operators Group); LACNIC (Latin American and Caribbean Internet Address Registry); PCH (Packet Clearing House); PITA (Pacific Islands Telecommunications Association); CTU (Caribbean Telecommunications Association); APC (The Association for Progressive Communications); GIPI (Global Internet Policy Initiative)

Panelists: Adiel Akplogan (AfrINIC); Sylvia Cadena (APNIC); Richard Misech (Palau National Communications Corporation); Bernadette Lewis (CTU); George Sadowsky (GIPI); Gaurab Raj Upadhaya (SANOG, nPIX, PCH)

The workshop was organized around issues rather than standalone presentations, allowing for dynamic and open discussion between panelists and workshop attendees throughout the workshop. Summaries of the discussion of each of the main themes follows.

Theme 1 – Capacity building

Challenges:

- Experts are often imported from outside developing regions to set up networks. After the experts leave and the networks grow, there is often not the local expertise to maintain the increasingly complex infrastructure.
- Network infrastructure in developing countries requires innovative solutions that experts from developed countries have not encountered, for example: unpredictable power supplies, using trees instead of building communications towers.
- Many people who receive good training in developing countries then leave to find better opportunities in other countries. It is a challenge to provide well-trained workers with job opportunities that will keep them in their original country.
- Training courses conducted in isolation by experts from developed countries do not provide the ongoing development operators really need.
- There is sometimes a mismatch between training courses offered and the training actually needed. For example, it is often tempting to send an operator to a state-of-the-art training course on the latest equipment when what would actually be of more benefit is a more profound training on basic networking issues.
- It is not just technical capacity that is needed. Operators need to understand policy issues that impact on their work, such as IPv6 and the exhaustion of IPv4.
- The rate of growth of development in developing countries is much faster than the

rate experienced by developed countries. The issue of continually needing to build capacity with limited resources to keep pace with accelerating technical complexity is an issue unique to developing countries.

Possible solutions:

- Encourage ongoing cooperation and exchange between developing countries to share and develop knowledge specific to the challenges faced by developing countries.
- Create long-term training programs by integrating more practical skills development within university and college curriculums.
- Encourage ongoing training through network operator group meetings. For example: AfNOG.
- Training needs to go beyond simply giving operators the skills to use equipment. Rather, training should give people the skills to use equipment in innovative ways.
- There need to be ongoing collaborative platforms, such as mailing lists, that allow operators to network and share skills after training events are held.
- Develop incentives to encourage operators to return to their developing countries and collaborate in developing networks. For example, perhaps countries could offer to pay overseas student loans if the student returns and works in the country for a few years.
- Encourage training and training materials in the local language. Encourage alternative educational methods such as multimedia and online learning.
- Develop “train the trainer” programs so capacity-building efforts can be shared and multiplied within countries and regions.

Theme 2 – Technical challenges

Challenges:

- Web content is often hosted outside developing countries, meaning that networks must pay for the bandwidth used to reach content.
- It's not enough that technical operators understand the technology; the community needs some understanding of how to use technology too. In one developing country, the antennas were being used to dry clothes on because the community didn't understand what the antennas were for.
- Connectivity is a problem for islands. Connectivity between islands separated by vast oceans is currently achieved by satellite, which is expensive.

Possible solutions:

- Developing countries should look for internal solutions that suit their particular needs rather than importing solutions from outside that may not be appropriate or

may be too expensive.

- Encourage Internet exchange points to reduce connectivity costs.
- Encourage content to be hosted locally.
- Involve the research and academic communities to help develop localized solutions.
- Educate the community so it receives good value from the technical infrastructure.

Theme 3 – Markets and competition

Challenges:

- Even in deregulated markets, it can be difficult for new competitors to enter the market in developing countries because newcomers must first obtain resources/connectivity from the incumbents. Additionally, it is hard for new entrants to spend money on training staff if it is economically difficult just for the business to stay afloat.
- In developing countries with very small markets (such as islands in the Caribbean or the Pacific), even with deregulation, the small number of customers available means that it is difficult for new businesses to attract customers as incumbent telecommunications companies continue to control the infrastructure.
- Often, networks rely on connectivity via out-of-country or out-of-region links when there are in-country or in-region connections available. This situation usually occurs due to isolation caused by competition fears. For example, the closest large IXP that networks in Latin America can currently join is in Miami. In South Asia, the closest large IXP available is in Los Angeles.
- While many developing countries now have IXPs, there is still a need for regional IXPs to allow nearby countries to exchange traffic with each other more cheaply.
- It was noted that political differences between countries meant that IXPs in nearby countries weren't willing to trust each other. In addition, some governments viewed IXPs as collusion between ISPs and therefore discouraged IXPs.
- Where there isn't enough of a potential customer base in a low population density area, there may be no interest for businesses to provide a service at all.

Possible solutions:

- Encourage awareness of the benefits to all who join IXPs. Allay fears that cooperation via technical solutions such as IXPs may lead to competitive advantages for only some of the exchange participants.
- Educate governments about the benefits of IXPs to allay fears about anti-competition.

- Develop alternative models of ownership to those used in developed countries. For example, the Bolivian mobile phone system is owned by the mobile phone owners.
- Encourage local innovative use of services. For example, in Haiti, a cybercafe set up to serve students and others without Internet connections at home found that the overwhelming use of its service was by people using VOIP to communicate with relatives abroad.

Theme 4 – Policy and regulation

Challenges:

- IT policy is often developed in silos without open dialogue between stakeholder groups. This can lead to policy that makes Internet operations and further Internet development within countries more difficult to achieve.
- Because of policy silos, it can make it difficult for newcomers, with services that may cross existing legislative or regulatory boundaries, to enter the market. The outcome can be that existing operators continue to dominate the market, despite government efforts to encourage competition.
- A lot of regulation in developing countries over the past decade and a half was aimed at encouraging competition and managing monopolies. However, in many cases an unintended side effect has been to actually encourage monopolies. For example, as monopolies historically have been a source of government revenue, tax regimes are based on entire revenue rather than profit. This can impede networks from being deployed in rural areas or doing high -risk operations that have high costs but low profit margins.
- Governments in some developing countries are failing to listen to advice from network specialists from within the country in favour of listening to advice from experts from developed countries. However, external experts do not always understand the specific needs of Internet operations in a developing country.
- There is often a high turnover of staff within regulatory bodies due to changes in governing party interests, leading to a continual need to educate each newly appointed head of regulations.

Possible solutions:

- Encourage development of open multistakeholder dialogue when governments are developing policy or regulation in the telecommunications sector to ensure the policy or regulatory outcomes support growth and innovation in Internet operations.
- Governments should be encouraged to develop policies that encourage Internet development in rural areas.
- Encourage regional Internet and telecommunications bodies with understanding of local issues to liaise with governments on policy making.

- Encourage governments to consider convergence issues when developing policy and regulations.
- As well as encouraging network operators to participate in government policy processes, regional and national Internet organizations should encourage government participation in Internet activities. For example, regulators from the Caribbean invited to a regional ARIN meeting became aware of issues networks had in trying to get their provider independent IP addresses routed by incumbent operators. This resulted in regulators agreeing to work on fixing this in policy or regulatory space.
- Network operators need to be patient about the time it can take regulators to develop enough understanding about technical issues to be able to adequately address the challenges. For example, in the eastern African region, it took a sustained dialogue over ten years for regulators to develop unified license regimes. If network operators had not been patient in continuing the dialogue, the changes would never have been achieved.

Theme 5 – Costs

Challenges:

- The cost of buying and importing technical equipment not available from within the country can be very high.
- There's a prevailing thought in some developing countries that it's automatically cheaper to host content, et cetera, in developed countries such as the US. However, this is not always true.

Possible solutions:

- Encourage the use of low cost equipment with low power usage.
- Buy experimental equipment by very small companies around the world. Such companies may be willing to sell their equipment for less to have the experience of getting their equipment deployed and used.
- Encourage government and banking services to be hosted on local infrastructure to demonstrate the cost advantages of local hosting and access to content providers and network operators.

WS 7: Low-Cost Sustainability Access

Organizer: Digital Empowerment Foundation

Co-Organizers: Internet & Mobile Association of India, ISOC, Intel

Chair: R. Chandrashekhar, Special Secretary, DIT, Government of India

Moderator: Osama Manzar, Founder Director, Digital Empowerment Foundation

Panelists: Deepak Maheshwari (Director, Corporate Affairs, Microsoft India); Rajendra Prasad (VP, Nepal Wireless); Syed Nazir Razik (Co-Founder, The Knowledge Foundation); Michael (Air Jaldi); Priyanthi (Diplo); Subho Ray (President, IAMA); Tahmina Rahman (AAIT, Bangladesh); Suresh Chanda (Secretary, IT, Andhra Pradesh); Ashish Sanyal (Director, DIT); Dr. Rajiv Sharma (Director General, Center for Good Governance); Sunil Abraham (Director, Internet Society); Joseph Thomas (Lead Partner, Byrraju Foundation); Sunil Kr Barnwal (CEO - JAP IT, Jharkhand Government); Meera Shenoy (Director, EGMM, Andhra Pradesh Government); Rajnesh, Anju (ISOC); Rajen Varada & Gitanjali Sah, (UN Solution Exchange); Ravi Gupta (Director, CSDMS); Fernando (Brazil)

The objective of the workshop was to discuss the initiative we need to undertake to bring low-cost, sustainable access to the rural poor so that we can empower the next billion into the ubiquitous information superhighway, the Internet.

The last five years have seen many ambitious projects, initiatives like OLPC, 100\$ Laptop, rural kiosks, e-choupal, Project Disha and so on, trying to create a better value proposition which can benefit the rural poor. All these initiatives created with a prime object for the underprivileged to take advantage of the benefits of Internet. But each of these attempts seem to have shortcomings. Thus the search is still on for a utopian solution to low-cost sustainable access. We are looking for a solution at the base of the pyramid where the market opportunity is amazingly vast. But at the same time the challenge and supporting infrastructure is pretty barebone and hostile. The users at this segment are clearly a VFM (Value for Money) market, i.e. value conscious.

The major pain points with conditions in developing countries like India are:

- There is a severe shortage of power in rural India. And most of the time there is lack of adequate voltage
- Lack of computers and basic cost of computers is at a higher threshold, making it less affordable for rural users
- Lack of connectivity in the last mile, Internet access in rural areas
- Lack of knowledge/awareness among the rural poor on the benefits of Internet
- Uncertainty of technology adoption by end users in rural India

The workshop was subdivided into four thematic groups:

- Access, Connectivity and Devices
- Content and Services
- Commerce and Business
- Policy and Regulatory Focus

Each of the thematic groups was allowed to brainstorm for 35 minutes on the issue. The resulting observations and recommendations were summarized into clear sets of bullet points that were put forth to the entire audience. All recommendations were

consolidated as a report to be sent to the IGF Secretariat and the Ministry of IT, Government of India.

Recommendations on Access, Connectivity and Devices

- We should focus toward providing low-cost devices to rural poor with cheaper access cost. What we should focus towards will be something like mobile devices that can be multifunctional in communication as well as for Internet access, at the same time can be charged and used for longer periods of time thus derive better utility value to the users. Unless our solutions provide a dramatic level of price-performance it will not be a value buy to the user. And we identified the need for a hybrid solution that is able to integrate and address all the pain points of the system.
- We should look towards increasing the investment capacity of end users or shared access should be made available.
- Increase human resource capability in using the devices and connectivity.
- Technology seems to be having smaller phase-out periods. We are currently using Core 2 machines and we have nearly seven upgrades in PC-based technology in as much as four years.
- We need to create awareness of visible improvement in the quality of life of end users due to connectivity.

Recommendations on Content and Services

- Standardize content to meet regional languages like standardization of keyboards of all vendors.
- All citizen services to be made available in the mobile platform too.
- Suggestion to insist on uniformity in formats across different states in the same areas.
- Translated content to be made available in regional languages too.
- Prioritize and support use of open source software.
- Services and content have to be made available and accessible to physically challenged people too.

Recommendations on Commerce and Business

- Need for a uniform policy for e-commerce transactions and sites
- Uniform security standards for sites that adopt e-commerce transactions
- Low cost/incentivized access to e-commerce sites
- Government support for low cost e-commerce models

- Creation of synchronous e-commerce models that facilitate following market interactions:- Rural >>Rural ; Urban >> Rural; Rural >> Urban; and Urban >> Urban transaction models

Recommendations on Policy and Regulatory Focus

- Proposal to create a corpus fund like USOF (Universal Services Obligation Fund)
- Incentivizing the service providers from the corpus fund (USOF) created to providers who extend services from urban to rural areas
- Ability to share and distribute unutilized capacities and share infrastructure
- Right of way policy
- Demand side policy facilitating long term sustainability
- Integrated or unified license for services for multiple services
- Spectrum regulation should reflect on public good

WS 9: Including Accessibility and Human Factors in the Universalization of the Internet

Organizers: International Telecommunication Union (ITU); Dynamic Coalition on Accessibility and Disability (DCAD)

Moderator: Stefano Polidori, Telecommunication Standardization Bureau, ITU

Panelists: Malcolm Johnson (Director, Telecommunications Standardization Bureau, ITU); Cynthia Wadell (International Center for Disability Resources on the Internet); Shadi Abou-Zahra (W3C Web Accessibility Initiative); Jorge Plano (ISOC-Argentina); Fernando Botelho (Mais Diferenças and Literacy Bridge); Arnoud van Wijk (Internet Society); Peter Major (Bureau of Radiocommunication, ITU); Dipendra Manocha (DAISY Consortium)

The program of the workshop focused on the different aspects of Web accessibility for persons with disabilities. Most of the panelists were persons with disabilities themselves. The DCAD promotes working directly with persons with disabilities in order to benefit from their real-life experiences. Organizations that are members of DCAD include the International Telecommunication Union (ITU), Australian Communications and Media Authority (ACMA), Council of Europe, Digital Accessible Information System Consortium (DAISY Consortium), Global Initiative for Inclusive Information and Communication Technologies (G3ict), International Center for Disability Resources on the Internet (ICDRI), Internet Society (ISOC), Internet Society Argentina (ISOC-AR), Mais Diferenças and Literacy Bridge, Nigerian Communications Commission (NCC), People Who, UNESCO, Web Accessibility Initiative (W3C). One new member joined during the IGF: the Indian Centre for Internet & Society.

Malcolm Johnson, in delivering a keynote address, stated that making ICTs more accessible is a priority for the Standardization Sector of the ITU (ITU-T) and those

standards have an enormous role to play. ITU-T recognized, along with its members, that in order to achieve the ITU's number one objective – to connect the world – 10 % of the global population with disabilities is an important constituency.

The workshop hosted seven panelists.

The first speaker was Cynthia Waddell, International Center for Disability Resources on the Internet, who gave a presentation on “UN Convention on Rights of Persons with Disabilities (UNCRPD): How Does it Impact the Internet?” In her speech she presented the role of government in carrying out ICT obligations of the UN Convention and the best practices for government in supporting accessibility standards.

Shadi Abou-Zahra, W3C Web Accessibility Initiative, indicated that in order to lead the Web to its full potential – which includes the promotion of a high degree of usability for persons with disabilities – lots of work has to be done and this should involve different stakeholders in Web accessibility. This presentation explained how the adoption of international standards for Web accessibility, the W3C/WAI guidelines for Web content, authoring tools, browsers and media players, play a key role in enabling accessibility for people with disabilities.

Jorge Plano, Internet Society (ISOC-Argentina), illustrated the lack of Web accessibility laws in developing countries and introduced some guidelines to help make them a reality.

Fernando Botelho, Mais Diferenças and Literacy Bridge, discussed raising awareness about low-cost and free alternatives for assistive technologies. His presentation included practical examples of low- and no-cost assistive technologies (LNCTs), common obstacles to their wide-spread adoption and strategies to overcome them.

Arnoud van Wijk, Internet Society, focused his presentation on the real-time text technology in Internet, which has become an essential accessibility feature for hearing impaired persons. The widespread adoption of the real-time text will allow freedom of communication and new services (for example, relay and remote interpreter and mobile text telephony).

Peter Major, ITU Bureau of Radiocommunication (BR), introduced the Accessibility Pilot Project which, by modifying the Space Network Systems (SNS) online, will make Web pages accessible for the visually impaired. He talked about the use of available tools to identify accessibility problems. Finally he explained that the Study Groups of the Radiocommunication Sector of the ITU (ITU-R) are working to incorporate these approaches in Recommendations.

Dipendra Manocha, DAISY Consortium, introduced the topic of information accessibility for disaster preparedness. As sadly shown during most recent natural and manmade disasters, large populations in the developing countries are especially exposed to vulnerabilities because of the lack of information and preparedness. Those vulnerabilities are multiplied for persons with any kind of

physical or sensory impairment. The DAISY Consortium is facilitating and creating open source solutions for accessible information. DAISY, as a standard for accessibility of digital content, has a big role to play in ensuring accessibility of the information related to all aspects of disaster management. The open source playback solutions can be customized for all user groups, which makes DAISY a valuable way to access and produce information for a critical issue like disaster management.

Conclusions

The workshop introduced existing technologies and international standards for Internet accessibility as well as the roles that various stakeholders, including the private sector, standard development organizations (SDOs) and governments have to play. It highlighted the necessity of making the Internet accessible to all, regardless of individual capabilities of different users. This has of course an impact not only on the need to eliminate information deprivation but also to eliminate socioeconomic discrimination. Moreover, including the needs of persons with disabilities in the planning of the universalization of the Internet will facilitate reaching the next billion and increase the participation in the Global Internet Society.

WS 20: Governance for Gatekeepers

Moderator: Jonathan Charles, BBC World

Panelists: Khalid Hadadi (BBC EU and International Policy); Ang Peng Hwa (Singapore Internet Research Centre); Alexandre Jobim Krueel (AIB-AIR/WBU); Marco Pancini (European Policy Counsel, Google); Murali Shanmugavelan (Panos, UK); Thomas Schneider (Ofcom, Switzerland); Alex Shulzycki (World Broadcasting Union); Qusai Al Shatti (Kuwait Information Technology Society)

Internet users increasingly rely upon gatekeepers (for example, news portals, search engines, et cetera, which act in various ways to filter access to information) to access content and services which facilitate the way we communicate, work, learn and research and entertain ourselves. They have become a vital door for the public's everyday activities. They are evolving as organic tools for navigating Web content. The range and number of popular gateways is shrinking as market forces make the powerful engines even more powerful.

The overall aims of the workshop were to better understand the control and influence that gatekeepers can have over the way we access, search, select and use content, and to consider how they are (self-) governed, how they are (ethically) responsible and transparent in their operations.

The objectives of the workshop were to consider who these gatekeepers are, to examine how they assist and facilitate access, search, selection and use of content, and to assess the benefits and risks to users (for example, with regard to free choice, consumer protection, harmful content and free speech, et cetera).

Key questions included:

- Who shapes access to the Internet, by which means, and is it fundamentally different to how we access content and services in the offline world?
- What are the risks and benefits to users?
- How to enhance the benefits and mitigate the risks to users? Is there a need for measures to ensure that there is no monopoly over access? Should alternative gate-keeping tools be made available, and is the public aware of all the implications of its choices?

Points of discussion, challenges and conclusions

- Media and content concentration happens not only in the traditional media, but also in the online world: traditional media companies and online services merge into vertical companies that offer content as well as other Internet services. Although more voices are speaking, fewer voices are listened to, and although the number of Web sites is constantly increasing, most of the traffic is concentrating on a decreasing number of Web sites. Some private companies and services have very high market shares and therefore a monopolist or quasi-monopolist position.
- Transparent versus secret business models: non-commercial and public “gatekeepers” like the BBC normally reveal their principles of how they manage their content. For commercial gatekeepers (i.e. private content and service providers), the way they process and distribute information is part of their business model and therefore normally not revealed. This can create conflicts with the public interest that their content and services generate.
- Differences between national regulations have an influence on how people access information and services: gatekeepers can be forced to filter and shape content differently by different governments. As a result, the same services can provide different results in different countries. In many countries, national Web sites are more controlled than “foreign” Web sites. If users have access to global Web sites, they can circumvent national restrictions and limitations. These different national legislations can cause troubles to globally operating companies and service providers.
- Users can also shape other users’ access to information and services: for example in some countries, users are organized and paid for the mass creation of content in favour of the government in order to “drown” other content more critical to a government and thus make it more difficult for other users to locate critical content and information.

Recommendations

- More awareness of the role of the different gatekeepers has to be raised.
- Companies operating in different countries have an interest in globally

harmonized regulatory frameworks.

- Whereas, in democratic countries, it is rather easy to develop rules and create transparency for non-commercial gatekeepers, it is much more difficult to regulate private commercial gatekeepers that work in a market environment. Competition regulation should enable new competitors to enter a market and come up with innovative services. However, it has to be kept in mind that, no matter how you regulate competition, you cannot force private actors to become creative.
- There is a need for self- and co-regulatory mechanisms like codes of conduct, guiding principles.
- Incentives should be created that private gatekeepers become aware of their responsibility and act accordingly.
- There should be ways to enforce these principles, for example by developing complaints bodies and other mechanisms.

Dynamic Coalition on Accessibility and Disability

Chair: Cynthia Waddell (ICDRI)

Panelists: Stefano Polidori (ITU-T/TSB); Peter Major (ITU-R/BR); Hiroshi Kawamura (DAISY Consortium); Jorge Plano (ISOC-AR); Shadi Abou-Zahra (W3C – WAI Initiative); Gabriela Barrios (independent consultant on law and ICTs); Fernando Botelho (Literacy Bridge); Arnoud van Wijk (ISOC); Dipendra Manocha (DAISY Consortium)

The Dynamic Coalition on Accessibility and Disability (DCAD) aims to facilitate interaction between relevant bodies and ensure that ICT accessibility is included in the key debates around Internet governance in order to build a future where all sectors of the global community have equal access to the Information Society. With this in mind, during the meeting, the DCAD discussed and adopted its first declaration: “Hyderabad Declaration on IGF Accessibility for Persons with Disabilities.”

The Declaration urges all governments to support the process of adoption, ratification and implementation of the United Nations Convention on the Rights of Persons with Disabilities. It also “strongly urges” that the needs of persons with disabilities be included in all aspects of designing, developing, distributing and deploying of appropriation strategies of information and communication technologies, including information and communication services, so as to ensure accessibility for persons with disabilities, taking into account the universal design principle, existing standards and the use of assistive technologies.

The Coalition has also approved an “Action Plan” for activities to be carried out in 2009.

Organizations that were members of the DCAD at the time of the meeting include ACMA, Council of Europe, DAISY Consortium, Digital Accessible Information System Consortium, G3ict, ICDRI, ISOC, ISOC-AR, ITU, Mais Diferenças, NCC,

People Who, UNESCO, W3C Web Accessibility Initiative. A new member joined during the IGF: the Indian Centre for Internet & Society.

Also during the IGF, ITU, in collaboration with DCAD members, organized a workshop, "Including Accessibility and Human Factors in the Universalization of the Internet: How to Reach Persons with Disabilities, 10% of the Next Billion." Most of the panelists were persons with disabilities who brought varied experiences of Internet accessibility from various perspectives. During the DCAD meeting a question and answer session was dedicated to the workshop.

The DCAD, led by ITU, will continue to facilitate inclusion of the needs of persons with disabilities in the global information society.

The DCAD meeting was captioned thanks to the kind sponsorship of Internet Society (ISOC).

Content

WS 16: Digital Content Strategies and Policies

Co-chairs: Graham Vickery, Head of Information Economy Group, and Sacha Wunsch-Vincent, Organisation for Cooperation and Economic Development (OECD)

Panelists: Venkata Rao (Head of Portals and Consumer Marketing, Sify Corp); Steve DelBianco (Executive Director, Netc.hoice); Nicklas Lundblad (European Policy Manager, Public Policy and Government Affairs, Google); Santosh Anoo (Head of Strategy and Operations, Deloitte Consulting India Pvt. Limited); Jeremy Malcolm (Project coordination, Consumers International-KL Office for Asia Pacific and the Middle East); Mark Carvell (Assistant Director, International Communications Policy, United Kingdom Department for Business, Enterprise & Regulatory Reform)

The workshop was designed to shed light on digital broadband digital content development, access and use, and to provide and inform the context for policy discussion, analysis, review and development. In this context, it also presented the OECD Policy Guidance for Digital Content adopted at the recent OECD Ministerial on the Future Internet Economy. The digital content principles are grouped under three main themes which provided a framework for discussion at the Workshop: (1) Promoting an enabling environment, (2) Enhancing the infrastructure and (3) Fostering the business and regulatory climate.

The OECD has worked with a wide variety of stakeholder communities on the subject of digital content to prepare its digital content principles. Drawing on this rich pool of partners, panelists included speakers from business, civil society and government who made presentations from their respective perspectives, i.e. Internet portals, the media and electronic commerce industry, search and online advertising, and other industry fields, the perspective of consumers and, finally, the one of government.

Participants also provided valuable feedback on aforementioned policy fields and gave useful country-specific contexts. The workshop was completed with a Q & A session on how to apply the OECD principles (also in a non-OECD context), also pointing to areas for new work.

WS 21: Knowledge as a Global Public Good

Moderator: Malini Aisola, Knowledge Ecology International

Speakers: Richard Owens (Director of the Copyright E-Commerce, Technology and Management Division, WIPO); Laura Denardis (Associate Research Scholar in Law, Lecturer in Law, and Executive Director, Information Society Project, Yale University); Rishab Ghosh (Senior Researcher, UNU-MERIT, Maastricht, the Netherlands); Thiru Balasubramaniam (Geneva Representative, Knowledge Ecology International); Aslam Raffee (Chairperson of the Open Source and Open Standards Standing Committee, Government IT offices counsel, South Africa)

Panelists at this session on Knowledge as a Public Good broached topics including a Proposal on a WTO Agreement for the Supply of Public Goods with a focus on knowledge goods, a detailing of the political dimensions of ICT standards, the economic benefits of open standards and the treatment of standards and patents in the WIPO Standing Committee on the Law of Patents (SCP) and South Africa's policy regarding the use of open software.

WS 23: Overcoming Obstacles to Effective Digital Education

Moderator: Nathaniel Gleicher (Yale Information Society Project)

Panelists: Geidy Lung (World Intellectual Property Organization); Hong Xue (Law School of Beijing Normal University); Ginger Paque (DiploFoundation); Eddan Katz (Electronic Frontier Foundation)

The panel featured a lively discussion about the challenges facing the expansion of digital education in the world today. While the panel covered many aspects of digital education, it particularly focused on the impact that intellectual property laws have on the development and delivery of new educational techniques.

Nathaniel Gleicher discussed some of the fundamental roadblocks that stand in the way of the growth of digital education. He defined five commonly discussed types of challenges: economic, cultural, technical, institutional and legal. He also noted that the rapid development of technology makes it difficult to define exactly what "digital education" means, suggesting that "scoping" constitutes a sixth type of roadblock. To deal with this challenge, legal and cultural expectations must remain flexible enough to adjust to the innovations of tomorrow.

Geidy Lung discussed the importance of maintaining protection for intellectual property, arguing that the present legal regime is well balanced to address future educational innovations. She also pointed out that, by creating incentives for writers

to develop new educational resources, intellectual property ensures content for educators and students.

Hong Xue focused on the impact of copyright on digital education, suggesting that the current framework made it difficult for innovators to adapt existing textbooks to new media. She gave the example of the makers of a widely used English textbook in China who recently sued a company that developed an interactive program to help students practice lessons from the book.

Ginger Paque spoke primarily as an educator, suggesting that the most important element of education, even in the digital age, is still the teacher. Rather than trying to replace a teacher with technology, digital education should make one-on-one learning time between teachers and students easier to achieve.

Finally, Eddan Katz returned to the question of regulation, suggesting that countries should adopt expanded exceptions to intellectual property laws to allow for more flexible uses by educators and students. This would spur innovation in digital teaching methods and media.

Audience participation was diverse, ranging from questions focused on Ginger's presentation of shifting teaching paradigms to a series of questions about the impact of copyright on the development of new digital education techniques. The panel was an important conversation about the challenges facing digital educators and students. Although the discussion addressed potential solutions as well as challenges, it would be very useful to continue this debate, perhaps focusing specifically on solutions to each of the roadblocks considered by the panel.

WS 25: Digital Identifiers and IPRs

Organizer: World Intellectual Property Organization (WIPO)

Moderator: Richard Owens, Director, Copyright E-Commerce, Technology and Management Division, WIPO

Panellists: Nic Garnett (Interight, Mountain View, California); Caroline Morgan (General Manager of the Copyright Agency Limited (CAL), Sydney); Eddan Katz (International Affairs Director, Electronic Frontier Foundation, San Francisco)

Online distribution of content offers challenges and opportunities for providers and users of digital information, including content that is protected by intellectual property rights (IPR), principally copyright. This rapidly-changing scenario raises questions in areas such as licensing and management of IPRs, and more specifically regarding the technologies used to identify, distribute and manage content on the Web.

The workshop had the objective of surveying, from a multistakeholder perspective, existing and emerging technologies for identifying digital content, the ways that digital identifiers can facilitate access to content on a global scale, and emerging issues in the widening use of identifier technologies.

The 1996 WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty establish legal protection of digital identifiers under the framework of “rights management information” (RMI). WIPO has been active for several years in promoting awareness of RMI, which is not the same as “technical protection measures” that are used to condition access to and copying of content (more commonly known as DRM). DRM has had a checkered experience and met with consumer resistance, particularly in the online delivery of music content, leading to partial or, in some cases, total abandonment by rightsholders.

By contrast to DRM, RMI technologies for identifying content have been improving in recent years through growing sophistication in metadata schemes and standards, enabling users to customize searches, find and access the content they need, and where appropriate, enter into flexible licensing agreements. During the workshop, it became clear that an array of digital identifiers is available or coming online to facilitate content location and access, from watermarking and fingerprinting technologies to tools like the Digital Object Identifier (DOI), the International Standard Audiovisual Number (ISAN), the Automated Content Access Protocol (ACAP) and the metatags that support Creative Commons licenses. Some identifiers, like the International Standard Text Code (ISTC), are ISO-approved international standards. As was noted during the workshop, digital identifiers can provide users with information about copyright ownership and terms and conditions of use of digital works, and, when effectively deployed, to help identify and access content that is in the public domain. In the words of Caroline Morgan of CAL, “RMI is about content and finding content, not about copyright.”

Despite recent progress, all speakers at the workshop acknowledged that much work remains to be done by both public and private sector stakeholders towards a digital environment that combines sustainable levels of accessibility, openness and authenticity of content from a users' perspective. In particular, the need for standards to ensure interoperability among different digital identifiers, including multistakeholder involvement, was stressed. It seems clear that, as market actors more actively promote the use of digital identifiers in online content delivery, governments and international organizations like WIPO have a corresponding role to ensure that use of these technologies furthers cultural and democratic objectives. In the words of the EFF's Eddan Katz, “We need a public voice and the users' side to be represented” in the creation of metadata standards.

BPF 68: Enhanced Internet-Enabled Access and Use of Public Sector Information

Chair: Graham Vickery, OECD

Panelists: Chris Corbin (ePSIplus, UK); Rajeev Chawla (Commissioner, Survey Settlement & Land Records Department, Karnataka State, India); Ilkka Lakaniemi (Nokia Siemens Networks, Finland); Dr. Govind (National Informatics Centre, Ministry of Communications and Information Technology, India)

This Best Practice Forum was designed to improve understanding of the economic impacts of improved access and use of public sector information (ranging from meteorological and mapping information through to museums, archives and cultural information) and to highlight the use and applications of the OECD Council Recommendation for Enhanced Access and More Effective Use of Public Sector Information.

The forum was opened by Graham Vickery, OECD Secretariat, who outlined the themes in the OECD Council Recommendation on PSI, highlighting the most significant elements and reflecting on progress so far, particularly in relation to the IGF. Chris Corbin followed and welcomed the OECD Council Recommendation in terms of laying out the economic principles that should underlie access to and social and commercial use of public sector information. This work has helped to clarify the European Commission Directive on Public Sector Information and to suggest new areas for possible extension of the Directive to make its use more economically efficient.

Rajeev Chawla gave a fascinating description of how land records and transactions involving these records have been transformed by their digitization and placing on the Internet. This has hugely increased access, decreased user costs and improved economic efficiency. Ilkka Lakaniemi discussed the potential for new service delivery based on public sector information but pointed to barriers that have inhibited the development of these services, most of which are addressed in the OECD Recommendation. Finally Dr. Govind gave a run-down on some of the initiatives of the Indian government to open up information and improve the use of this information for public and commercial use.

The forum was completed with a Q & A session looking at how policy can contribute to improving access to and use of public sector information and what are the biggest hurdles to improving access and use. Discussion was led particularly from developing countries that are in the process of improving access to and use of public sector information and follow-up contacts were made with various participants to provide further information and advice as well as diffusing information more widely, for example through press articles.

Dynamic Coalition on Freedom of Expression and Freedom of the Media on the Internet

The Freedom of Expression and the Media Online Dynamic Coalition (FoE DC) was relatively quiet between the 2007 and 2008 IGF meetings. Members of the coalition have been working on their own projects relating to freedom of expression, and sharing outcomes and news items where appropriate.

Taking note of the relatively low level of activity of the coalition in 2008, the initial question asked at the coalition meeting in Hyderabad was whether the coalition should continue to exist, or whether it should merge with the Internet Bill of Rights dynamic coalition. The overwhelming response from meeting participants was that

the coalition should continue to operate in its own right. There was general consensus that freedom of expression is a critical Internet governance issue and that more needs to be done to address it in the context of the IGF.

Issues to work on over the next year

Suggestions made by meeting participants included:

- The coalition should focus on people's real-life experiences of violations of free expression. We should look at how we can support those who face direct limitations on FoE.
- The coalition should examine whether there are certain issues that are unique to freedom of expression online and should focus on these. How is content delivery different? What are the technical aspects that we need to concentrate on? Who are the gatekeepers?
- Other participants argued that we should look at both online and offline issues, and the intersection between them.
- The coalition could look at what freedom of expression means in the context of the Internet. Should it examine definitions and explore what the limits to free expression are?
- The coalition should look at the issue of linguistic diversity. How can we connect people working on similar issues or facing similar problems who speak different languages?
- Other issues to consider are media concentration, blogging, pro-poor issues, positive dimensions of expression and the public sphere, filtering, security, the role of media entities and user generated content.

Development and Capacity Building

WS 49: A Development Agenda for Internet Governance: From Principle to Practice

Organizers: Centre for International Governance, Graduate Institute for International Studies, Geneva; Federal Office of Communication, Government of Switzerland; Association for Progressive Communications; Consultative Committee on UN Information Technology, China Association for Science and Technology; DiploFoundation; Internet Society of China; Ian Peter and Associates Pty Ltd.; Panos Institute West Africa, Cipaco Project

Moderator: William J. Drake, Centre for International Governance, Graduate Institute for International and Development Studies, Geneva, Switzerland

Panelists: Jose Vitor Carvalho Hansem (Deputy Head of the Division of Science and Technology, Ministry of External Relations, Brazil); Raúl Echeberría (Executive Director, LACNIC, Uruguay); Olga Cavalli (Advisor to the Ministry of Foreign Affairs, and representative

to the Governmental Advisor Committee of ICANN, Government of Argentina); Anriette Esterhuysen (Executive Director, Association for Progressive Communications, South Africa); Fiona Alexander (Associate Administrator for International Affairs, National Telecommunications and Information Administration, Department of Commerce, Government of the United States)

A development agenda is a holistic program of analysis and action intended to mainstream development considerations into the procedures and policy outputs of global governance mechanisms. In recent years, many stakeholders have worked to promote such agendas in the multilateral institutions dealing with such issues as international trade and intellectual property. But in the field of global Internet governance, there has not been any debate about whether a development agenda could be functionally effective and politically feasible. To begin filling this gap, a workshop entitled “Toward a Development Agenda for Internet Governance” was held at the second IGF in Rio de Janeiro in November 2007. Participants who spoke to the point at that session agreed that in principle, a properly configured and consensual development agenda could help to promote a more open, accessible, diverse and secure global Internet. They also agreed that the IGF provides the right venue for further non-binding dialogue on the possible substance and modalities of a development agenda.

The Hyderabad workshop was designed to follow up on the discussion in Rio. Its goal was to move beyond the question of whether a development agenda is desirable in principle and consider what it might actually involve in practice. Two overarching sets of questions were explored. The first concerned the possible substantive focus of such an agenda. This included assessing both the policy outputs of governance mechanisms pertaining to Internet infrastructures and their use for networked information, communication and commerce (the vertical dimension); and procedural or institutional issues, such as the transparency and inclusive participation called for by the WSIS principles on Internet governance (the horizontal dimension). The second set of questions concerned the operational aspects of establishing and promoting a development agenda, i.e. the concrete steps that would need to be taken.

To set the stage, the moderator began by highlighting the main themes that were discussed in Rio. He then compared and contrasted the conditions that have facilitated the development agenda processes in the WTO and WIPO with those evident in the Internet governance environment, where a highly distributed institutional architecture and complex configurations of interests would make it difficult to pursue a centralized approach with formal negotiations and commitments. Given these parameters, he suggested that it might be sensible to concentrate initially on institutionalizing collective analysis – e.g. monitoring trends, aggregating information and assessing progress – with an eye toward identifying best practices and lessons learned that could inform the work programs of the diverse institutions and collaborations involved in Internet governance.

The first speaker outlined a number of substantive and operational challenges that developing countries have encountered in Internet governance decision-making

bodies. These included, inter alia, an uneven distribution of risks and rewards across countries and stakeholder groups in the approaches taken to individual issues concerning Internet infrastructures and uses; and barriers to effective participation related to the prevalence of the English language, the highly technical nature of certain issues and institutional shortcomings at the national and international levels. He concluded that absent a flexible and integrative development agenda that facilitates more equal participation by all stakeholders, these problems could deepen rather than attenuate over time.

The second speaker reviewed steps that have been taken by LACNIC to promote capacity building and development in Latin America, and then suggested that the IGF is well positioned to serve as the focal point for cross-cutting international dialogue and knowledge sharing on development issues.

The third speaker echoed the latter view, and cited the problems of access and international interconnection costs as meriting particular attention in the context of a broad development agenda geared toward ameliorating international and intranational inequalities.

Going further, the fourth speaker argued that such an agenda should seek to identify common ground on global public policy principles, consistent with a public goods and rights-based orientation; take stock of development-oriented progress on such issues as access, open standards, security and IPV6, and be pursued not only in the global IGF, but also in regional IGFs.

Finally, the last speaker observed that intergovernmental discussions of Internet governance often turn into laborious and highly politicized negotiations over texts and generally do not systematically explore real development challenges. At the same time, while many organizations are engaged in solid capacity-building work, the absence of a “one-stop shopping” mechanism to access and compare information on their activities impedes the identification and generalization of best practices. The IGF could help to fill these gaps, although it would be difficult to galvanize the collective energies required through annual conferences alone.

In the discussion that followed, a number of audience members raised substantive issues they thought should figure prominently in a development agenda. With regard to Internet infrastructure, topics identified included the root server system, names and numbers, technical standards, network security, access and convergence. With regard to the Internet’s use for networked information, communication and commerce, the development aspects of intellectual property, cyber-crime, privacy and spam were cited. On the operational aspects, there was broad agreement that the IGF was most logical place to pursue a development agenda, and there were expressions of interest in the possibility of forming a dynamic coalition to carry the matter forward.

WS 56: The Role of Internet Exchange Points in Creating Internet Capacity and Bringing Autonomy to Developing Nations

Panelists: Sam Paltridge (OECD); Salam Yamout (Program Manager, Cisco); Michuki Mwangi (Senior Education Manager, ISOC); Bill Woodcock (research director of Packet Clearing House); Sebastian Bellagamba (ISOC regional Bureau Manager for Latin America and the Caribbean region)

The workshop aimed at building upon the highly successful IXP best practices session at the 2007 IGF In Rio. Several themes were discussed that highlighted the role of Internet exchange points in making developing regions economically autonomous, how Internet exchange points foster the development of local content and culture, and how IXPs facilitate other critical infrastructure like the Domain Name System.

Salam Yamout presented on the establishment of the Beirut IX as one of the projects initiated by Cisco on behalf of the Partnership for Lebanon. The Partnership for Lebanon was formed at the end of the July 2006 war to assist the Lebanon community to rebuild ITC infrastructure and regain long-term stability and economic growth. The Partnership for Lebanon promotes the establishment of Public Private Partnerships. In the case of the Beirut IX project, the partnership worked with the following partners: Packet Clearing House (donation of expertise and know-how), Cisco (donation of equipment and facilitation), the Professional Computer Association (providing an umbrella for dialogue and trust) and Berytech (subsidizing the location and set up costs).

It took exactly seven months to establish the Beirut IX.

- In May 2007, meetings with main stakeholders and government officials were conducted to assess feasibility and compliance with governing laws.
- In December 2007, the stakeholders settled on the location and governance model of the Beirut IX. It is worth noting here that many meetings between the various ISPs took place in the period from May to December, before trust was built in the project and in the potential of the IXP.
- In January 2008, the Beirut IX was set up and installed, and PCH performed a BGP workshop. That same afternoon, the first 3 ISPs started peering together.
- By April 2008, all ISPs were peering.

The challenges that were faced during the establishment of the Beirut IX were:

- The rocky relationship with the incumbent operator, as the latter decided to peer and then withdrew causing lack of confidence and uncertainty from the part of the parties interested in peering.
- The location of the Beirut IX was the hardest decision to make.
- It's worth noting the different approaches CIOs vs. CEOs had towards the establishment of the IXP. The CIOs had an easier time building trust and

confidence and were comfortable with the informal structure of the IXP. The CEOs were more cautious, requiring more time to build trust between them.

- It was difficult to get the Lebanese to document the establishment and operations of the Beirut IX. But fortunately, the Management and Operations Committee published all relevant information on www.beirutix.net.

Bill Woodcock presented on the Packet Clearing House statistics report on growth and IXPs for the period 2008. This report indicated that the KIXP had the highest percentage growth in the 2008 period with 384%. In comparison the European IXP had a higher Net traffic growth with AMSIX recording over 200Gbps during the period. In the regional Net growth, Asia-Pacific and Africa had the highest percentage growth with Europe and Asia-Pacific recording the highest Net traffic growth.

Mr. Michuki Mwangi presented on the impact of IXPs from an African perspective. The presentation highlighted that there were 17 IXPs in 15 African countries. During his presentation, participants from Malawi confirmed that the Malawi Internet Exchange Point has been commissioned the previous week thus increasing the number to 18 IXPs in 16 African Countries. Following a research conducted earlier in 2008 the total traffic distribution across 10 African IXPs totaled to 364.5 Mbps with South Africa having about 55% of the total.

Mr. Mwangi further explained the evolution of the Internet interconnection model. The establishment of IXPs at the national level has introduced the peering concept which lowers the cost of Internet traffic delivery compared to the transit interconnection models that exist between service providers. As the impact of the peering model is realized, the capacity of links connected at the peering points or IXPs will grow in size in comparison with the transit links. In the end, transit links' capacity will only be a fraction of the peering links' capacity, allowing for lower costs of access for all.

Further, using the case study of the Kenyan Internet Exchange Point (KIXP), he highlighted some of the factors that contribute to the growth of IXPs, taking note that the right policies were pivotal in their success. In his view, the KIXP has managed to attract 26 participants and grew 384% in 2008 following review of its peering pricing policies, introduction of additional value added services, and improving the facilities' stability, security and resilience for power and cooling. This features have seemingly attracted the participation of Google at the KIXP and hence the remarkable growth of traffic at the facility.

Sebastian Bellagamba presented on behalf of the Argentina IXP NAP Cabase. As a co-founder of one of the oldest IXPs coming from emerging countries, he focused his presentation on sharing lessons learned while deploying an IXP in a developing country, highlighting obstacles and impediments they found and wrong decisions they have made in that process.

The major point Sebastian addressed was the relationship between the peering model (mandatory multilateral versus bilateral agreements) and the incentives the

incumbents have to participate in the IXP. He pointed out that, in the Argentinian case, having a multilateral mandatory peering model caused tension with the incumbents that were participating in the IXP, to the point that they eventually left; and how NAP Cabase managed to produce changes in its policies in order to keep the IXP growing.

The Chair closed by thanking the panel and the participants for making the workshop informative and contributing to a lively discussion. He particularly thanked Packet Clearing House (PCH), the Internet Society (ISOC) and the World Information Technology Services Alliance (WITSA) for assisting to jointly organize the workshop. He noted that the discussion had ranged over best practices for IXPs and that participants had made good use of the depth of hands-on experience on the panel stemming from different regions around the world. From his perspective an ongoing challenge is to explain the benefits of IXPs to the policy-making community, and having technical community experts attend the IGF in this context was greatly appreciated.

WS 58: Network Neutrality Issues and Implications for Development

Organizers: DiploFoundation; Technology Policy Institute

Partner Organizations: CISCO; ISOC Venezuela; Privaterra

Moderator: Vladimir Radunovic, DiploFoundation

Panelists: David Gross (US Ambassador); Robert Pepper (Cisco); Thomas Lenard (TPI); Jovan Kurbalija (DiploFoundation); Virginia Paque (ISOC Venezuela); Robert Guerra (Privaterra)

The Internet is a communication platform that allows end users to access content and content providers to connect with customers. This platform is multi-sided, meaning that incentives to invest and innovate on one side affect the others. Different aspects make network neutrality a highly complex and frequently debated issue. While net neutrality has no single definition, in most general terms, net neutrality questions the right of network operators to deliver certain data packets faster than others based on the type of application, source and nature of content, and other criteria.

Network neutrality proponents contend that it is crucial for maintaining content innovation and diversity. Opponents counter such rules are unnecessary, can reduce investment in broadband infrastructure and paradoxically may even reduce the incentives to develop certain applications in the future. The key point is whether any regulations dictating how networks operate are likely to have broad effects beyond those the rules are intended to address, affecting incentives to invest in infrastructure and content.

Network neutrality has been debated in the United States for several years and is emerging as a major issue in Europe. The importance of this issue for the developing world and its possible effect on the digital divide are often neglected

since the Internet and broadband are much less widespread in poorer countries than in richer ones.

Maintaining incentives to invest in local Internet infrastructure and content remains crucial in developing countries if the Internet is to fulfill its promise in promoting economic growth and freedom of expression. However, would explicitly allowing packet prioritization and new pricing models convey additional market power to a small number of incumbent companies, further disadvantaging consumers in developing countries?

The panel discussed the economics and engineering aspects of networks and how network neutrality regulations might affect those investments. The workshop also examined implications for the digital divide, by bringing different perspectives on the problem to the audience, and listening to their opinions.

The goal of the session was to discuss the implications of this debate and its outcomes to the developing world. It aimed at raising awareness among the representatives of developing countries and encouraging them to get involved in the global debate in order to bring a strong emphasis on the perspective of the Global South.

In his opening remarks Ambassador David Gross questioned the very term “network neutrality” as an artificially constructed term, while the issue is more about the users than about the concept. The term, initially mentioned by Tim Wu who argued that the Internet should be neutral, generated much debate and was seen as an effort to counteract the control of broadband providers on content, platforms, equipment, modes of communication, et cetera, on the broadband that they provided to end users. Ambassador Gross observed the issue in terms of the need for innovation on the edges of the Internet versus the need for increased bandwidth – who makes investments and on what basis.

Dr. Jovan Kurbalija noted the semantics of the discussion and posited that it was a perfect example of the “wrong question to the right answer” – stating that technology is neither bad nor good nor neutral but its impact is determined by the user. In his view, a greater significance than the term itself is the provision of equal access to resources, to promote the interest of those disadvantaged. He emphasized a much broader front of issues commonly involved in the discussion – such as the freedom of expression and choice facilitated by the Internet. He acknowledged that technical designs can solve some social and legal problems in this area.

Mr. Robert Pepper stressed that we should try to build on the success of the Internet, making it faster and more robust, as this would lead to greater innovation, consumer benefits and an open and safe infrastructure. He discussed the impact of video on Internet traffic and drew reference to traffic statistics from Japan, where the top 10% of the Internet users were using 90% of network resources. He underlined that the applications which were time-sensitive required a different approach.

Dr. Thomas Lenard discussed the issue in the context of the current financial crisis, noting that tight credit markets and the high cost of capital mean that investors will require a higher expected rate of return than in the recent past. He noted that broadband is a distribution business and that broadband platforms are intermediaries in multi-sided markets, and that these characteristics have implications for analyzing pricing and other business practices. He also pointed to empirical evidence by TPI senior fellow Scott Wallsten indicating that if net neutrality means mandatory unbundling, it has an adverse effect on investment in next-generation infrastructure. The best answer is more platform competition, which has a positive effect on investment.

Referring to the Global Internet Freedom Program, which was helping companies evaluate benefits and risks associated with network neutrality, Mr. Robert Guerra observed the convergence of different media such as newspapers, radio and TV with ISP. The activism campaigns to promote a better understanding of issues as to whether open or neutral networks help have been primarily expressed in Canada and the US, he said. He drew reference to the Caribbean where major telecommunication incumbents, acting as ISPs, have an interest in slowing VOIP traffic which may cut into their telecom business. Noting that slowing down the Internet has consequences for freedom of expression, he drew reference to Iran where he said slow connections were used as a form of censorship.

Presenting the issue from a consumer viewpoint, Mrs. Virginia Paque framed the discussion in terms of choice or control of what the consumer can do. While nothing is free or unlimited, choices and control about pages and applications should be in the hands of consumers rather than ISPs, and any shaping should be transparent. As an example if Walmart limits choices one can switch to Target but it is more difficult to change ISPs. She noted that the IGF was a great place to discuss these complex issues.

Taking the floor from the audience, Mr. Bob Kahn discussed the technical aspects of the “end to end” configuration of the Internet and the integration of applications at the core for more and more efficient operation. He felt that the future should be in the applications at the core with open interfaces so there is no fragmentation of the Net.

In the discussion that followed Mr. Pepper noted that the old model analogies don't always make the point and sometimes conflate the issues. He noted that there should be a clear distinction between State and ISP action which seeks to impact on the neutrality of the Internet. Mr. Guerra reiterated that the Net should be the same whomever by and wherever it is accessed as this ensures that developing countries are not disadvantaged. Dr. Lenard also pointed out that ISPs usually need to do what customers want in order to make profit.

Some questions were raised from the floor relative to the level of competition among ISPs in developing countries as it relates to their responsiveness to consumer demands. The issue of ISP capacity to provide adequate broadband without traffic shaping was also raised. Mr. Sivasubramanian Muthusamy from India

challenged the panel to develop a business model that ensures network-neutral ISPs make money, suggesting that this would solve the problem. He argued that a person using the Net for example to download music and movies should be differentiated from a person who uses it for business purposes with priority being given to the latter. At the very least a pricing structure that reflected different usage patterns should be put in place so that ISPs remained profitable, he debated.

A general opinion was that it was a stimulating workshop. The workshop made it clear that network neutrality is a complex issue and can be looked at from different viewpoints - bringing socio-political issues to the fore with respect to freedom of expression and consumer choice, versus framing the issue in technical terms.

The point was also raised that, considering the digital divide, access to the Internet was a more pressing issue for developing countries than the issue of network neutrality. In other words the debate about the neutrality of the Internet is pointless in the absence of the Internet. Nevertheless, for those emerging economies where the Internet is spreading rapidly network neutrality can have an impact on the type of business models that they can develop and this will ultimately impact on their overall economic prospects.

While there was no compelling information presented that carved out a position that was in the interest of developing countries to take – whether “neutral networks” would hurt or help the prospects of developing countries and in what ways – the workshop succeeded to dissect the issue and somewhat delineate technical, economical and socio-cultural aspects, leaving space for a follow-up work in the coming months.

WS 60: Capacity Building for Web 2.0

Organizer: Ministry for Foreign Affairs of Finland

Moderator: Ambassador Yrjö Länsipuro (Ministry for Foreign Affairs of Finland)

Panellists: Eppie Eloranta (Managing Director, Finnish Information Society Development Centre – TIEKE); Jyrki Kasvi (Vice-Chair of the Committee on the Future, Parliament of Finland); Outi Alanko-Kahiluoto (Member of Parliament, Parliament of Finland); Naimur Rahman (Director, OneWorld South Asia); Sandeep Bhargawa (Head Corporate Affairs, APAC Region, Nokia Siemens Networks)

The workshop examined various aspects of capacity building that will enable innovation and learning networks, new users and their communities to benefit from their access to the Internet and social software (Web 2.0).

The Internet keeps on evolving. It started as a web of computers, became a web of knowledge and is now turning into a web of people. The social skills needed are developing among youngsters. A gap in the skills of adults and youngsters exists. Parents manage the technical side, but lack understanding of the social side of Internet. The same applies for our educational system. Virtual learning should be better understood by older generations.

Finland was taken as an example. At present, 83% of Finns use the Web daily (children >90%, elderly ~11%). Public discussion is focusing on the dangers of Internet use, whereas it should focus more on parents spending more time with their children and especially spending it in the Web 2.0 environment.

Work life is changing, societies are becoming virtual. The first generation of “Internet natives” is entering the workforce. The core skill of the future is communication. “Human capital” is developing and changing all the time. The Internet is being used more and more innovatively. A recent example of the power of Internet societies was the US elections, where Obama’s campaign used the Internet in a way not seen before. Internet societies have tremendous work capital in their use, which can be seen for example in wikis and voluntary translations of Web pages.

Most of the next one billion new Internet users will have their first Web experience with their mobile phones. They enter directly into Web 2.0. How to take advantage of it? Technology gives for example children of distant areas easier access to education. Adults can be educated to become entrepreneurs taking advantage of mobile technology, thus being able to affect their lives to a larger extent. With local content and services people become more integrated into the society. New technologies can be used innovatively combining new and old technologies.

The panelists’ presentations stimulated discussion where the participants shared their own personal experiences. Social networks can achieve big-scale results, such as the *Star Wreck* movie series, which was created by a group of *Star Trek* fans and has reached millions of Internet users worldwide. Nokia shared some of its experiences of the changing needs of the labour market as it has developed into a global giant. Virtual and social skills are needed in growing extent.

It was noticed that the nature of news is changing. People create content with their mobile phones which is then published on the Web. This type of news is popular especially in Europe. It creates a challenge to the reliability of news, but also to the traditional business models of media companies. Local content creates significant added value in a global network. Local uses of new and traditional technology together were discussed through examples of, for example, weather services for farmers and fishermen. Mobile phones (and Internet access) improve significantly one’s chance of acquiring a job for example in India. It was visioned how in the future godparents could keep in touch with their Third World godchildren with the help of a mobile phone. The technology exists and is mostly affordable.

BPF 62: Internet Governance Capacity Building

Organizer: DiploFoundation

Partner: ISOC Venezuela

Chair: Vladimir Radunovic, Coordinator, IG Capacity Building Programme, DiploFoundation

Panelists: Priyanthi Daluwatte (DiploFoundation, Sri Lanka); Virginia Paque (ISOC, Venezuela); Tony Ming (Commonwealth Secretariat); Sivasubramanian Muthusamy (ISOC, India); Marilia Maciel (IGF Remote Participation Working Group, Brazil); Rafik Dammak (Youth, Tunisia)

This forum introduced important concepts for effective participation in digital online learning for Internet governance capacity building, highlighting DiploFoundation's approach to Internet Governance capacity development training programs – both online and in situ. A main focus was presenting follow-up activities by Diplo alumni and joint activities with Diplo partners to show the effectiveness of dynamic committed learning process that can be achieved online.

The workshop motto was “how to go beyond training” in order to “develop capacities on a long term base” – produce a multiplier effect, create a community of practitioners and involve them in national and global processes.

Presentations

- Introduction to Diplo's work and IG Capacity Building Programme – Priyanthi Daluwatte, Sri Lanka, DiploFoundation trainer, presented the concept of the Program, the methodology of the online training, main goals and objectives.
- IG training for India – Virginia Paque, coordinator, DiploFoundation, presented on how the same methodology can be used for local/regional training of professionals and officials, in this case in India as a lead-up activity to the IGF in Hyderabad. Also included were perspectives on a bilingual approach, allowing students to present their coursework in languages other than English.
- From a perspective of a successful student and trainer – Priyanthi Daluwatte, Sri Lanka, DiploFoundation trainer and IG for India participant Sivasubramanian Muthusamy, India.
- Capacity building as a step into the implementation of knowledge – Tony Ming from the Commonwealth Secretariat gave their perspective on CB on a local and regional level, describing successful outcomes of Commonwealth and Diplo cooperation in delivering IG and ICT policy and strategic plan training in South Africa, Swaziland, Botswana and other Commonwealth countries.
- Online Capacity Development concepts for dynamic participation – Virginia Paque, coordinator, DiploFoundation presented the importance of generating interaction between all actors in order to achieve maximum knowledge exchange.
- Beyond CB: bottom-up activities by a community of practitioners – Marilia Maciel presented the remote participation initiative for the Hyderabad IGF including traditional RP and remote hubs.
- Maintaining community spirit – Rafik Dammak, Tunisia, presented on how to keep the community, particularly the youth, engaged through initiatives such as coordinating the IGF article for Wikipedia, and through platforms such as social networks.

Key Points

Program training methodology:

- Multistakeholder profile of participants with diverse backgrounds and professions, regional and age diversity.
- Knowledge and experience exchange among the participants as a dynamic base for knowledge exchange: this is particularly important in online courses to avoid “losing” participants because of isolation and lack of peer-to-peer commitment and facilitator presence. Possibilities to increase dynamic interactions were visually diagrammed.
- Multilingualism in practice with bilingual sections: English, English/Arabic, English/French, English/Portuguese and English/Spanish, allowing for exploration of topics in English, as well as expression of ideas in other languages.
- Course-Research-Fellowship approach: internships with IGF Secretariat, IGF and other meetings for immersion in policy processes and application of knowledge.
- Tutoring and per-topic discussion facilitation by peers: bringing in current issues and controversies that are of significance to each group.
- Online communication through the learning platform based on Web 2.0 communication tools: the interaction is text-based in order to be convenient for the participants from least developed countries, and all those that might be limited to dial-up connection. Diplo is also testing webinars, remote participation tools and the Second Life program for some online meetings as well as other alternatives and emerging issues.
- Regional implementation of the IGCBP methodology.
- Bringing local content and problems into focus, and further encouraging regional partnerships and initiatives developed by participants from these regions.

Follow-up

Regional educational and training institutions are encouraged to consider a similar training approach for building capacities within their region, related to the IG in general or to specific regional concerns. Diplo will be available for any assistance and partnership.

Diplo's IGCB program will continue looking for partners who are interested in helping Diplo IG team develop and improve the program for the years to come in order to provide as many people from the developing countries with the opportunity to learn more about the most emerging issues related to the Internet as well as to involve them in the global and local debate on IG.

The IGF Wikipedia project continues, particularly with updates on the 2008 Hyderabad meeting.

New members signed on to youth projects to generate more engagement through Web 2.0 and new resources.

The IGF Remote Participation initiative is already working on preparations for the IGF 2009 meeting.

BPF 64: Turkey: A Nation Transforming to Information Society

Organizer: Information Technologies and Communications Authority of Turkey

Chair: Dr. Turgut Ayhan Beydođan, member of the Information Technologies and Communications Authority.

Panelists: Türker Gülüm (member of Executive Board in Turkish Informatics Association); Deniz Tunçalp (Manager of mobile signature operations, of Turkcell Corporation); Mr. Ahmed Ramazan Altinok (Chairman, e-Government Advisory Group of the Turkish Prime Ministry)

Mr. Türker Gülüm, member of the Executive Board of the Turkish Informatics Association, the oldest and one of the biggest civil society organizations of Turkey, made a presentation about public-private partnership and the role of civil society in the transformation to information society process. During his presentation he informed participants about

- The current situation of ICT usage in Turkey
- Turkey's Information Society Transformation Policy
- E-Transformation Turkey Project
- E-Transformation Turkey Executive Board model
- The role of NGOs in this model
- Internet Board model
- Kamu BIB Working Group
- Leading NGOs in Turkey in the field of ICT

Deniz Tunçalp, the manager of mobile signature operations of Turkcell Corporation, the biggest and leading GSM operator of Turkey, made a presentation on the Internet banking applications and use of e-signature and m-signature in these applications. During his presentation he touched upon key advantages, technical aspects, security, business models and sample applications for mobile electronic signature. He also provided some information on mobile banking in Turkey and the "Mobile Signature Initiative: Towards a Global Mobile Identity."

Ahmed Ramazan Altinok, the Chairman of the e-Government Advisory Group of the Turkish Prime Ministry, made a presentation about some key e-government applications of Turkey. In this context, he focused on following projects:

- the Central Civil Registration System (MERNIS)

- the Identity Sharing System (KPS)
- National Judiciary Network Project (UYAP)
- the Customs Modernization Project (E-Customs)
- e-Health Project (Sağlık-NET)

The presentations were followed by a lively discussion on the issues presented and panelists were asked many questions. It was recognized that sharing and debating of countries' best practices are of critical importance in preventing parties losing time by reinventing the wheel and enabling people to take steps forward faster and more robustly.

Part 2 – Promoting Cyber-security and Trust

Chairman's Summary of Main Sessions

The second day focused on the theme of "Promoting Cyber-security and Trust." The topic was covered in two panel discussions, one on the "Dimensions of Cyber-security and Cyber-crime," and the second on "Fostering Security, Privacy and Openness." These were followed by an Open Dialogue.

Dimensions of Cyber-security and Cyber-crime

The first session, "Dimensions of Cyber-security and Cyber-crime," was chaired by Mr. Rentalal Chandershekhar, Special Secretary of the Department of Information Technology in the Indian Ministry of Communications & Information Technology, and moderated by Mr. Bertrand de la Chapelle, Special Envoy for Information Society of the French Foreign Ministry.

The discussion began with a reminder of how much the Internet had grown and how critical it had become for governments, for commerce, for the economy in general, for civil society and for researchers. The discussion then went on to discuss the problems that this reliance has brought. It was pointed out that the Internet was not built to be secure, but open, and that openness, while intrinsically good, also made it vulnerable. Bad things could happen, data could be lost and data could be compromised. While sometimes this was accidental, sometimes it was the product of criminal behavior. It was considered a chilling fact that those engaged in maliciously causing security problems were one step ahead. Quite often they were more technically advanced than those who are engaged in solving the problems, especially in the case of developing economies.

It was noted that most off-line crimes had now also moved on-line. There were also new forms of crime that were specific to the Internet, such as hacking or phishing. In addition, there were also attacks on a country's critical infrastructure, such as distributed denial of service attacks (DDOS). Examples of attacks on sewage systems or air traffic control were also mentioned in this context. There was general acceptance that crime and criminality in any society was dealt with through law enforcement. But it was also noted that law enforcement was made difficult by the borderless nature of the Internet. While in the off-line world the perpetrator of a crime could be traced to the locality where the crime was committed, this was not the case anymore in the on-line world. Law enforcement therefore was confronted with problems of jurisdiction and geographical boundaries. In addition, legislation in general was slow to adapt to a fast-changing technological environment. The discussion included the realization that the emergence of Internet threats and the use of the Internet for illegitimate purposes required new solutions in dealing with cyber- crime.

It was also noted that there were a vast number of stakeholders involved at various levels, and that the cooperation of all of these stakeholders was needed to resolve

the issues that were discussed in the session. Several of the presenters pointed out that all users were part of the Internet and that therefore, unwittingly, could be a part of the problem as well. It was therefore important for all users to be a part of the solution instead.

There was a general understanding that there was a need for multistakeholder collaboration, cooperation and coordination at all levels: national, regional and international. The representative of the ITU presented the organization's Global Cyber-security Agenda. A High Level Expert Group had been set up, comprising some 100 experts, representing all stakeholder groups. The ITU based its work on five pillars:

- Legal measures
- Technical and procedural measures
- Organizational structures
- Capacity-building
- International cooperation

While the problem was global, there was a need for action at the local level. For this reason the ITU had adopted a combined bottom-up/top-down approach.

The issues discussed in the panel were summarized as follows:

- The need for prevention, and not only remediation, but prevention defined as proactive measures to make attacks harder.
- The need for a more resilient architecture.
- The need for establishing a feedback loop between prevention, analysis of incidents, and remediation.
- The need for coordination of many actors involved in prevention, remediation and related issues. They were from all categories of stakeholders. It was essential to build trust networks among those actors. To build such a network would require time.
- The need for cross-sectoral multistakeholder cooperation. This required avoiding the urge to address the issues in silos of actors and instead bringing all actors together, that is governments, the private sector, civil society and the technical sector. Discussions should be organized on an issue basis by all actors concerned.

There was a general agreement that there was a need to intensify efforts to combat cyber-crime. A final point was made concerning the role of the IGF in this area and how it could help the various organizations that were dealing with those issues in various regions, and various categories of actors to interact with one another and find solutions.

Fostering Security, Privacy and Openness

The second session, "Fostering Security, Privacy and Openness," was chaired by Mr. Shyamai Ghosh, Chairman of the Data Security Council of India (DSCI) and moderated by Ambassador David A. Gross, Coordinator for International Communications and Information Policy in the United States Department of State.

The session started off with a mention of the conflict in the sense of national security versus security for privacy, and the right to information and a mention of how increasing the level of user security and privacy, confidence and trust could be engendered for use of Internet and facilitating free expression of opinion.

The Chair spoke of how the Internet was global, but privacy could be local, regional or national in context. As the Internet had become a way of life, there were societal issues which needed to be addressed. In the Indian context, it was explained that nine million subscribers were being added every month. Governance was considered to become a relevant point in these circumstances. The moderator began the meeting by talking about the resurgence in importance of the issues of this session. While these issues were front burner in the 1990s, over the last few years they had been less important. Now they had come to the fore because they were in the confluence of societally important issues that were, in many respects, in conflict with each other and yet are additive of each other: security, privacy, and openness.

The session was rooted by the mention of several important declarations and documents:

- Universal Declaration of Human Rights (UDHR) with regard to the free flow of information and its importance
- The Tunis Agenda was a high watermark for the commitment to free flow of information, both in paragraphs 4 and 42
- The OECD ministerial contained many important statements on the free flow of information
- The International Telecommunications Union at the World Telecommunication Standardization Assembly, offered in Resolution 69 a strong statement about the free flow of information in which Member States were invited to refrain from taking any unilateral or discriminatory actions that could impede another Member from accessing public Internet sites
- The Global Network Initiative which brought together a number of NGOs and companies with the aim to address the issues of protecting freedom of expression and privacy for users

In the discussion, the United Nations Declaration on the Rights of the Child and the European Convention on Cyber-crime were added to the list of important agreements related to the topic of security, privacy and openness.

One panelist explained how the whole debate about privacy, openness and security could be shown in the dimension of women's human rights. The discussion focused on the specific issue of sexual rights defined in the Cairo Program of Action, as a state of physical, emotional, mental and social well-being related to sexuality. This definition was not merely related to the absence of disease, dysfunction or infirmity, but it also required a positive approach to sexuality and sexual relationships as well as the possibility of having safe sexual experiences, free from coercion, discrimination and violence. The numerous human rights were discussed as having a direct bearing on sexual rights and sexual health. These included the right to liberty and security of the person, the right to be free from torture and inhuman and degrading treatment, the right to private and family life, the right to nondiscrimination and, specific to this session, the right to information and education. The presentation went on to explain that the Internet had provided a kind of critical space to enable women to explore their sexual agency, to be able to acquire information about sexual and reproductive health that may or may not be available in other sorts of public spaces. The Internet also allowed women to explore a more positive and more active form of sexual expression that puts women as the sexual actor, not as the object that is being acted upon. The Internet had also become a critical space for women of marginalized and diverse sexualities to network, to exchange information and to be able to build communities with each other. And this was where it also intersected with issues of privacy.

The moderator brought up the confluence of freedom of sexual expression, as content on the Internet, with the discussion of protection of children.

It was pointed out that the OECD Ministerial Meeting, held in Seoul in June 2008, concluded that there was a correlation between information flows, ICTs, innovation and economic growth, while recognizing that there were risks associated with the use of these technologies and the need to address them in an appropriate fashion. In terms of protection of children on the Internet, five categories of risk were mentioned:

- content
- contact
- addiction
- commerce
- privacy

The increased awareness of the importance of data protection was mentioned as regards not only the protection of the private sphere of individuals, but their very freedom. Internal and international security requirements and market interests could lead to the erosion of fundamental safeguards of privacy and freedom. It was discussed how data that were collected for one specific purpose were often made available for other purposes and made available to bodies, both public and private, that were not intended recipients of these data.

The representative of UNESCO recalled that the UNESCO constitution, created over 60 years ago, talked about free flow of ideas, information and knowledge, while Article 19 of the Universal Declaration of Human Rights was the anchor for freedom of expression and freedom of the press. In recent years this fundamental principle had been applied not only to the traditional media of printed press, radio and television, but also to new and emerging technologies. UNESCO had referred to this as the freedom of expression applying to technologies without frontiers.

The discussion moved on to the lack of trust the user often had in using technologies, particularly in e-commerce and other financial applications. The user was described as worried about the cyber-threats, like virus forms or trojans or identity theft, while organizations were described as worried about the theft of data.

The moderator mentioned an issue that was alluded to but not discussed in this session, that is, the role of anonymity on the Internet and its relation to privacy especially in spheres such as medical information.

In concluding, the Chair spoke of the challenge in converting the areas of tension or conflict into areas of convergence, so that both the issues of security and privacy could be addressed in the proper perspective.

Open Dialogue Session

The open dialogue was chaired by Mr. Pavan Duggal, President of Cyberlaws.Net and Dr. Gulshan Rai, Director, CERT-In. The moderator of the session was Mr. Jonathan Charles, BBC Foreign Correspondent and News Presenter, and co-moderated by Natasha Primo, the National ICT Policy Advocacy Coordinator for the Association for Progressive Communications, and Mr. Everton Lucero, Counselor for Science and Technology at the Embassy of Brazil to the United States and Vice-Chairman of the Government Advisory Committee (GAC) of the Internet Corporation for Assigned Names and Numbers (ICANN).

The debate started along the path of looking for a balance in the multi-dimensional nature between security, privacy, and openness. There was an often expressed view that these issues were as complex in nature as they were important. Also, there was a general feeling that there was no one-size-fits-all solution.

A major theme of the discussion was the tension between rights. Some of the discussion concerned the difficulty that many countries and organizations had in fulfilling the commitments of the UDHR when balancing the needs to protect society against terrorism or pedophilia. It was pointed out that while the rights contained in the UDHR might be a challenge to meet, all countries that have signed it had the obligation to uphold these rights. Another speaker pointed out that when a criminal used a road to commit a crime, that road would not be closed, but rather would get better lighting.

A few speakers made the point that the discussion should not be about a tension between security and privacy, but the ways in which these could be mutually

reinforcing. Further to that, there was some discussion that the tension should be re-conceptualized as a tension between rights and responsibilities, and this also brought into focus the importance of education, and specifically media literacy for users.

Discussions pointed toward an emerging consensus that dealing with cyber-crime, cyber-security, privacy and openness was a joint responsibility of all of the different stakeholders. Much of the discussion made the point that there was need for more information about where victims of cyber-crimes could go to find a remedy.

The problems were represented as challenges, not only to law enforcement agencies, but also to parliamentarians, to civil society, to intergovernmental organizations, to the private sector and to the technical community. There was a discussion of the different definitions of cyber-security and that law enforcement might not always be the best option, especially when dealing with cases related to access to information. One of the other considerations concerning the role of law enforcement made by several speakers was that in some cases, law enforcement officers might not be the best solution as they might be part of the problem rather than the solution. Specific reference was made to repressive states and to situations where the nature of the problem, for example harassment due to gender or gender preference issues, might make the standard law enforcement regimes unhelpful at best. This discussion was connected to the theme that it took the interaction and cooperation of all stakeholders to find solutions.

On child pornography, some people questioned the predominance this topic was taking at this IGF. A number of points were made that this perhaps was not the appropriate space to take up this discussion, and that there was need to look at mechanisms, measures, processes and differences in other spaces where the issue could be addressed more effectively. But the point was also raised that there was a need for a more nuanced debate on questions and definitions such as: what is a child? what is harm? what is harmful content?

There was some feeling in the room that discussion has matured enough in this area so that now, perhaps, a common environment could be created where all relevant stakeholders could build trust and work together.

While there was some skepticism about whether a decision on solutions could be reached at the IGF, there seemed to be a general feeling that the IGF discussion could bring a better understanding. It was pointed out that there were stakeholders involved in this area who were not part of the debate here. As the discussion moved forward, there was a need to bring those communities, those interested parties, into the discussion to enrich the debate and to help understand the implications for other users of some of the measures that were being considered for cyber-security. There was a feeling that whatever the way forward might be, it had to go through the multistakeholder cooperation, dialogue and partnership in the spirit of shared responsibilities. In this regard, it was mentioned that there was still a need of enabling developing countries to fully participate and share their needs, challenges and concerns.

In concluding, it was mentioned that the IGF was not reinventing the wheel: there were relevant references and international norms, like the UDHR, among others, and there were national and regional experiences. It was also concluded that there was a need for a long-term solution, which was not only based on law enforcement but also on the quality of education, devoted to raise consciousness and awareness towards personal empowerment, fulfillment and, above all, happiness.

Panel Discussion on Dimensions of Cyber-security and Cyber-crime

Chair: Mr. Rentala Chandershekhar, Special Secretary, Department of Information Technology, Ministry of Communications & Information Technology, Government of India

Moderator: Mr. Bertrand de la Chapelle, Government of France

Panelists:

- Mr. Patrik Fältström, Cisco
- Mr. Marc Goodman, International Multilateral Partnership Against Cyber-Terrorism
- Mr. Alexander Ntoko, ITU
- Mr. Michael Lewis, Deputy Director, Q-CERT, USA
- Mr. Gulshan Rai, Director, CERT-IN, Government of India,
- Mr. Jayantha Fernando Director and Legal Adviser, Information and Communication Technology Agency (ICTA), Sri Lanka

Extracts from the Transcript of Proceedings

Introductory Remarks

R. CHANDRASHEKHAR:

We are all aware how much the Internet has grown and how much the convenience and benefit of the Internet have come to mean for not just civil society, but for researchers, for governments, for commerce, for the economy in general. So much so that all of these areas are now quite dependent on the Internet. But this heavy dependence has also brought in its wake some unwelcome attention from people who would like to create problems for this infrastructure, which forms the basis of activity in all these key areas of daily life. And it's also drawn attention from people who would like to create problems in the working of the medium itself. The sheer convenience and benefit, in fact, are available not just for those who want to do good, but equally for those who want to perform acts which are illegitimate and illegal in any civilized society.

Crime and criminality in any developed society are dealt with through the force of law. But legislative measures are bogged down by the problems of jurisdiction, geographical boundaries, and also by slow adaptability in a fast-changing technological environment. These limitations imply that there are a lot of other

things which need to be done. And there are a vast number of stakeholders involved at various levels, and perhaps a lot needs to be done at each of these levels.

We have this morning a panel which collectively represents many of the different stakeholders who are involved in actually managing the Internet at various levels. And the emergence of these threats and the use of the Internet for illegitimate purposes, both of which need to be dealt with, can perhaps be addressed through this panel, to bring out clearly what are the kind of issues, what are the dimensions of the threat, what are the implications for all the diverse stakeholders involved, and what are the possible actions which need to be taken both individually and collectively to meet these threats going forward, especially when we are now talking about trying to reach not just the next billion, but even the last billion.

BERTRAND DE LA CHAPELLE:

This is a mapping exercise. It is obvious that in an hour and a half, we will not be able to address in depth, and let alone solve, the questions that we're addressing here. The purpose of this panel today is to present you with a certain number of perspectives on those questions of cyber-crime and cyber-security. I will turn now to the first speaker, Michael Lewis, who is the deputy director of the Q-CERT, the CERT in Qatar, and also connected to Carnegie-Mellon University.

Presentations by the Panelists

MICHAEL LEWIS:

I think we all can agree that cyber-crime is a growth industry. Users are increasing, the number and range of devices are increasing, the vulnerabilities associated with these devices are increasing, the exploits based on these vulnerabilities are increasing, the financial incentives and the interest for criminals and for terrorists have also increased. It is worthwhile for us to note that we inherit legacy systems. With those systems come old exploits. Even if we did everything perfectly well starting from today, we would have to deal with persistent threats over the course of the next couple of generations. It's now fairly easy for someone to become a cyber-criminal. The rewards are quite high. It's very difficult for law enforcement to move against it. And innovation is happening more on the criminal side. As a computer scientist, I'm really impressed by what's happening with some things such as botnets and these distributed command and control systems.

We should recognize that the Internet wasn't really designed for security. There is a great deal of dissension about what we mean by security, but it's better for us to be proactive than reactive. We should prepare for the worst. Incidents happen all the time. In fact, I presume everyone here at one time or another has lost or thought they lost a USB drive. How would you approach your data if you assumed in every instance that it would be lost or that every message that you sent in clear text would become public? So everyone at every level is doing something already. But it's

better to do it better and in accordance with the growing body of experience and best practices.

There are some people who have done some very good work, and we should learn from this. In particular, we should try to use relevant and useful standards and policy and adapt them. I think a one-size-fits-all strategy isn't effective. We should recognize regional, local, cultural issues that may influence the implementation of a security strategy. And I think it's important for us to develop and implement systems that complement and don't compete with each other, that mutually reinforce. I've come to call this broadly a cyber-security network.

Many of the panelists talk about relationships of trust. The question to ask, when something goes wrong, is who do you call? What happens in a crisis? Would someone recognize it when it happens? Do they know what to do? When to do it? And in some cases, whether or not law enforcement should be involved, and if so, how to engage with law enforcement? Are the relevant roles defined?

There are a number of issues of authority, responsibility and liability that don't really get raised until there's a crisis. And I would propose that that's precisely the wrong time to try to resolve those issues. The trusted relations also should be developed in advance. And it should be done at all levels. It's a question of defense in depth. It needs to be handled from the highest of levels to the most mundane and tedious of levels.

One possibility, a component of cyber-security, is the idea of a computer security incident response team. This can exist within an organization, within a sector, at a regional level, a national level. Ideally, they will be more proactive than reactive. But by the very nature of the term, you'll notice they emerged from a reactive framework. I'll give some credit to Carnegie-Mellon. They were the founder of the original CERT.

Within an organization, when something goes wrong, there should be somebody inside who handles that the response. If people go outside the normal channels, then they may violate internal policies on handling information or on privacy. So it's really quite important to have something inside, an entity inside the organization that has the responsibility and is charged with maintaining the system and responding. And this response needs to be formalized. In many cases, people do these things in an ad hoc manner. But it's not as comprehensive as it could be. And maybe the message of the day is that security is a constant, evolving situation. The threats evolve. The responses evolve. And the organizational approach should also evolve.

Now, within organizations, it's nice to have coordinated and formalized response. But this should also be true at a national level. And this is the part that I think is often missing. Out of hundreds of CSIRTs in the world, there are a handful with national responsibility. If something goes wrong, if there's an attack on systems in my country, coming from another country, and I can trace this back, whom do I contact in the source country? This often isn't very well defined. Over time, it should

become more defined. And one way, one mechanism to do this is through the formulation of national CSIRTs. But they are one player amongst many.

A national CSIRT is a necessary but not sufficient component of any national strategy. You'll notice there are multiple CSIRTs here, in banks, education, ministries, et cetera. And there ought to be a mechanism where they can report and consult with the national center and the national center can push information to them – simple things such as alerts and notices, or notifications of seminars or workshops. But these channels need to exist in advance. Points of contact and secure methods for communication need to be established and tested on a regular basis.

Now, putting this together, at a national level, the cyber-security network has multiple constituencies: end users, organizational response centers and the national center. You also need to work with your neighbors, your trade partners and the like. And there could be engagement with law enforcement at any level as well as external organizations, such as FIRST, the Forum for Incident Response and Security Teams, which is in my estimation probably the premier organization for this type activity, and organizations such as the ITU, which has done some very nice work, in particular, the ITU-D initiative on national frameworks for cyber-security. The point is, they should be consulted and your work could be aligned with them.

Anytime something happens, it ought to be reviewed. Most of the time when incidents happen, people hide them. That's a bad approach. You can have a program which handles such things discreetly and provides good advice. The goal would be early detection, improved response and shortened duration of the situation. And perhaps this will lead to recognizing categories of incidents, what should be done and when, provide people with the right authority, and recognize if there are liability issues. In some cases, the response to the incident may actually interfere with the follow-up analysis. So the team needs to be trained in analysis techniques which are forensically safe. You don't want to do the analysis on the original equipment. You might want to do this on images of that equipment such that you don't inadvertently step on your own toes in the follow-up.

In conclusion, there are a number of things we want to think about. How much security do we actually want or need? What kind of security do we really desire? Are we sometimes conflating safety with security? If we implement controls, how do we do it without damaging the actual benefits of the Internet and much of what made it what it is today? Should there be anonymity? And if so, how much and when? Who holds the data? Under what guidelines? And then one that seems to be coming back quite a bit lately is this issue of protecting vulnerable communities, in particular, children. What should we do there?

BERTRAND DE LA CHAPELLE:

I will now turn to Marc Goodman, who is Director of International Cooperation, the Center of Policy and International Cooperation, and also responsible for the International Multilateral Partnership Against Cyber Threats.

MARC GOODMAN:

From my perspective, I can share with you where law enforcement is on these topics.

One of the biggest questions is a definitional one. What is a cyber-crime? What is cyber- terrorism? What is a cyber-threat? And why should we care about any of these? I won't spend our time here looking at these definitions. Just to say that there are many definitions out there. We are reaching some agreement, and the work continues.

The first point I would like to make is the fact that traditional crime has moved online. So any crime that you can think of in the real world, whether it be money laundering, sexual exploitation of children, gambling, intellectual property theft, identity theft, extortion, threats, illegal drugs, prostitution, all of these are occurring in cyberspace with great success. So what we have is criminals taking advantage of technology and improving their operations.

The next form of cyber-crime that we have seen are new crimes. These are the crimes that could not exist were it not for computers and computer networks. So prior to computers or, perhaps, telephone networks, there was no hacking. Michael spoke about denial of service attacks. Viruses. Now we are seeing increased sophistication of phishing, botnet armies, terrorist use of the Internet, and an area I am interested in, crime in the virtual world, which is sort of Web 2.0, 3.0 forms of criminality. Whatever we do, I can tell you the criminals are next to us or several steps ahead of us.

Another form of Internet threat to consider on both the national and the local levels are critical infrastructure threats. Michael talked about the increasing amount of networking of technologies, and what we have seen is that, increasingly, government systems – whether they be air traffic control, banking, energy, national security – all of these are connected to networks. And so if those networks become penetrated, there are threats that need to be considered. And these are not theoretical threats. There was a famous case in Queensland, Australia, where a former employee hacked into the water sewage system and was able to release raw sewage throughout Australia. Many of you will be familiar with the Estonia attacks of recent time. And in Massachusetts, about 10 years ago, somebody got control of the air traffic control tower in a small airport in Massachusetts and was able to disable the runway landing lights, all remotely via a network connection. So these threats are quite real.

One of the latest threats is terrorist use of the Internet. This is everything from publication of ideologies online, propaganda, raising of funds, recruiting new members, intimidation campaigns. We have all seen these terrible videos online of beheadings. The terrorists are taking full advantage of the technology that's out there and using it for operational planning to make their terrorist attacks more efficient. And so this is something that we need to be aware of. Of course, each of these technologies has a positive use as well. But they are being used for negatives and for criminal activity.

I want to make a point that these types of crimes are new in that they are truly international. If we have a criminal that intrudes into a bank in Manila, the police in the Philippines will go ahead and begin their investigation. They may find out that the origin of the attack was in Buenos Aires. They then talk to police in Brazil who find out the attack came from Seoul only to go ahead and ultimately address the perpetrator in Canada. This is something new. Now the question is where is the crime scene and who is in charge? And law enforcement is spending a lot of time trying to work out these issues.

So there are several challenges. One of them, as I just mentioned, is geographic distance. These investigations can be very expensive. They require a lot of resources. They need to be done in real time, otherwise the evidence can go away. The anonymity of the Internet makes things difficult. Jurisdiction is hard, legal is hard, and the technology is always changing. So just because you knew how to do a forensic analysis of a Windows 95 machine, that won't help you with Vista, per se. And so you have to stay on top of it. The legal issues are somewhat of a challenge because many have no laws against cyber-crime. So even if India has a very strong cyber-crime law, if they are attacked from a country who has no cyber-crime law, due to international treaties, mutual legal assistance, et cetera, dual criminality, it will be almost impossible to extradite the perpetrator and bring them to justice. So it's important that we work together closely.

In conclusion, there are more than 200 countries connected to the Internet. Cyber-crime is a global issue. It may be great that 50 or 75 or even 100 countries have rules and regulations, policies and procedures concerning cyber-crime. But if 150 countries don't, then we have a problem. And so we need to work with our partners in the developing world to help ensure that we can have cyber-security, cyber-peace, and cyber-trust around the world. Otherwise, what we will end up developing are what we call cyber-havens. We have already seen this with money laundering. Money launderers tend to go to certain countries because it's easy for them to launder money there. Unless we can truly make a strong international architecture in which we can have an Internet that is built upon peace, trust, security and the avoidance of crime and harming other people, then we won't succeed. We all have to sink or swim together and cooperation and coordination are key.

BERTRAND DE LA CHAPELLE:

This notion that a lot of actors are involved, I would like to ask Patrik Fältström to explore further. Patrik Fältström is from Cisco, and as a provider of equipment and a very well-known security specialist who is in contact with a great diversity of actors.

PATRIK FÄLTSTRÖM:

As you heard before in the two previous presentations, there are a large number of organizations involved, and a pretty complicated network of organizations. But it's even more complicated than that.

One of the reasons is that the world has changed quite a lot. If we look at telephone voice service, 30 years back each country more or less had an incumbent that was responsible for the functionality of that service. They kept track of who was calling who, they sent out the bills. If things didn't work, you called them. If it was the case the police needed information, they knew who to talk to. But today, it is more complicated. We introduced competition, we introduced number portability, so it might be hard to even know who the phone number belongs to. You have more and more virtual telephone companies or voice over IP providers that act over national boundaries. So the question is, if an organization that is covering multiple countries, like many ISPs do, wants to talk to a CERT, should they pick one of the national CERTs, or the one where the crime is, or their favorite ones? "It depends," I think, is the correct answer here.

It is also the case that it's pretty important that we do some prevention methods. People install various kinds of anti-virus software in the computers. You have firewalls. You put in mashers to trace where traffic is passing, to detect what is happening. You install security systems on the doors. So that's a prevention thing. But even though you have created this barrier that is going to protect you, something might happen. And during an incident, then you would like to act. So you need to be able to know, should I talk to the law enforcement? Who can help with these hard decisions? But then after everything is resolved, it might be the case that you would like to collect some data and draw conclusions so you have a feedback loop afterwards. And that feedback is, in turn, supposed to help to increase the prevention methods that you are implementing. So in reality, you have a circle of action, feedback, reaction and prevention, which goes around and around and around. So the important thing is to think about the security, not only beforehand, but also to update your prevention mechanism according to what happened, according to recent incidents, in your organization but also in other organizations.. So we have multiple organizations depending on where in this cycle you are at the moment, and you also have different organizations depending upon what kind of problem it is.

I just gave an example with a voice application, but on the Internet, of course, we can run many different applications and services on top of an Internet access. So it ends up being pretty complicated to know who you are going to talk to. If I've got a DDOS attack against me, who am I supposed to talk to? Who knows where that flow is coming from? That can be really difficult to know. Even if you know the IP address where the attack is coming from, who knows where that IP address is? That's a complicated question because the ISP may not know where geographically the end of the IP address is. It's the one owning the fiber or the copper pair that knows where the IP address is, or even the cell phone provider that can do triangulation of the radio. So even for one sort of simple thing like an IP address, there are multiple providers involved in collecting information, even within the same geographical area. And then on top of that we have the multiple dimensions across the world that you just heard about. So this is extremely complicated. But it's not only that.

It's also the case that if you are an enterprise, or if you have a network at home, if we connect computers or networks to the Internet, what we connect ends up being a part of the Internet. And this is also a change in the thinking of the world compared to in the old days when we connected a phone to the phone network. In Sweden, at least, it was the case that we could even only buy phones from the incumbent. They approved the phones. It was their phone jack. They had complete control over the whole system. Today, when I connect something to the Internet, my things end up being part of the Internet. And because my stuff ends up being a part of the Internet, I am also responsible for that piece of the Internet. So we have a shared responsibility. And because of that, it is even more important that we talk with each other.

So who should you talk to? Well, you should talk to the one you trust, and you should talk to the ones that actually help you. Which means that this is to a certain degree competition and market economy regarding services. There are multiple CERTs out in the world. We at Cisco have one. Many of the manufacturers have CERTs, just like countries, just like organizations, and each one of those gives a different kind of service. Some of them are better during an incident, some are better regarding statistics collection, and you talk to the one that gives you help. You give information to someone if you trust that they are only going to use the information for what they tell you they are going to use it for, and specifically you are giving information to them if you get more data and information back than what you give them.

If you have a country and you have three or four Internet service providers in the country, I claim that a CERT will not be created in that country as long as the ISPs can talk to each other. It must be easier for each one of the ISPs to talk to the CERT than to talk to all the other ISPs. So to a certain degree the CERT is really a coordination center that makes it easier for organizations to exchange this information and create this feedback loop. But also, all of this trust normally starts by having individuals trust each other. That needs to grow into having organizations trust each other. And when organizations trust each other and when you start to pass data back and forth then you need to create a legal framework. You need to set up NDAs between the organizations, you need to have a formal structure. But that is built according to a bottom-up process. Trying to tell someone that you as an organization, you must give your information about all the security incidents and everything that has happened to this other organization, being told that is a little bit uncomfortable. It's much better if you start with the bottom-up process, start to understand that you should give out the information, that it helps.

So all of these organizations work together in an ecosystem where you have multiple processes going on and multiple CERTs, and certainly they are overlapping, but all of them are solving a problem. If they don't solve a problem, they will go away because people will not share information with them. So now when the information is shared, it could be both tracking, for example, phone calls and IP addresses, which is as part of the prevention methods. It could also be during an incident or after an incident happened that you collect statistics.

Is it dangerous to exchange information? I think the answer is, it depends. It depends very much on who is asking, what query is allowed to the data, and when you ask, what information do you get out. Just because of the authentication authorization to the database, it might be the case that different parties querying, even though they issue the same query, get different data back. So, for example, an IP address by itself might not be dangerous at all. But the IP address and a usage pattern or traffic flow or the connection to a customer, that might be privacy information, and most certainly is under some legislations. So the collection of data by itself doesn't have to be dangerous. But it is the usage and how it's queried and what it can be used for which is the problem. And that's why after a while of this informal network of individuals, you need NDAs and the formal structures. But once again, built in a bottom-up process. There are multiple of these, and I see different organizations, depending on at what part of this feedback circle we are working.

BERTRAND DE LA CHAPELLE:

I think the main challenge for all of us is that we have to handle a huge network of actors, and interactions between those actors at different stages of the loop that was described.

MICHAEL LEWIS:

I think Patrik's point is valid. It looks easy but it's not. There are only perhaps two dozen or two and a half dozen of these national CSIRTs in the world and I don't think any of them have it just right. The project I am on now in Qatar was designed by Carnegie-Mellon based on its 20 years of experience and the best practices of the community. And even with a master plan that had a lot of good advice, we have been at it for three and a half years and we are not there yet. So I do think this is not an overnight success and it needs to evolve. It also needs to include private sector partners. I think that was implied but not made specific enough.

BERTRAND DE LA CHAPELLE:

I would like now to give the floor to Jayantha Fernando who is the director and legal advisor of the ICT agency in Sri Lanka. He helped establish the national Sri Lankan CERT and also helped develop the legislation on cyber-crime in Sri Lanka.

JAYANTHA FERNANDO:

The transition from paper-based environment to a paperless and a network environment has created great opportunities for governments, businesses and users. The opportunities we all know go with challenges. This is true in a network environment as well. That brings us to this morning's discussion which has become a global challenge for governments, businesses and for individual users. Previous speakers in this panel have dealt with these challenges and given us an overview of cyber-security and cyber-crime. The purpose of my intervention here is to address some of the policy and enforcement challenges from a governmental perspective

and share some of the policy trends and approaches to legislation and the institutional models, such as the establishment of CERT.

So are we really losing the battle against cyber-crime? Well, the policy challenges we encounter on a day-to-day basis may give that impression to all of us. On the one hand, law enforcement reform cannot keep pace with the developments in technology. Therefore, the law enforcement processes are often behind technology. And this is a global phenomenon.

From a legal perspective, some have sought to define cyber-security, and the definition in the Cyber-security Information Act is an interesting example. However, no consensus has been reached in respect of a definition of cybercrime. And cyber-crime broadly used with categories of human behavior where the confidentiality, integrity and availability of a computer or computer system is affected. And where the systems are used as a tool for the commission of other traditional offenses, like cheating, criminal misappropriation, criminal theft, fraud, et cetera. So many of our speakers have dealt with that issue earlier.

Battling cyber-crime also poses enforcement and policy challenges. And that's the substance of what I have been asked to intervene on. Any criminal investigation interferes with the rights of others where the person is the subject of an investigation, how they are related to the party. In a democratic society, such interference must be justifiable and proportionate to the needs of the society sought to be protected. However, the growth of network-based crime has raised difficult issues in respect of the appropriate balance between the needs of those investigating and prosecuting such crime, and the rights of users of such networks. In addition, there are the rights of and interests of the network providers, the intermediaries that build and/or operate the network and services through which data is communicated.

These challenges require parties to the enforcement process – namely, investigators, prosecutors and judges – to work in a coordinated manner. This necessary coordination is also challenging for governments because of the lack of expertise to deal with cyber-crime. As such, governments have been compelled to rely on expertise from outside governments, such as from academia and business. This is the experience in Sri Lanka as well.

The Computer Crime Act number 24 of 2007 in Sri Lanka, which was brought into operation on the 15th of July this year, responded to these enforcement challenges by providing for an independent group of experts to assist the law enforcement agencies in the investigation of cyber-crime. These designated experts are fully empowered and given protection under the legislation. However, safeguards have also been built to protect the business as well as the computer systems they use which are subject matter of investigations. This is to provide the comfort measures required for businesses and individuals to report cyber-crime. So for instance, as Patrik pointed out, some of the confidentiality measures that he spoke of earlier have been built into our legislation, and those obligations have been enforced on

experts together with provisions to ensure that business continuity is not hampered during investigations as much as possible.

Governments can no longer rely on traditional government expertise to address cyber-threats and forensic issues. As such, new institutional models may have to be created based on hybrid frameworks. The Sri Lankan experience may be an interesting regional example in this regard. In mid June 2006, the Sri Lanka CERT was created to address cyber-security incidents, and this was established as a government-owned company as a subsidiary of IT Agency of Sri Lanka, with support from the World Bank, and runs on a private sector-driven model with highly skilled incident handlers with pay commensurate with those in the private sector. The board of the CERT consists of a range of stakeholders such as enforcement authorities, bankers, private sector and academia. These efforts have resulted in the establishment of other technical CERTs, like the one established by Sri Lanka's foremost technical university, as a project of the Sri Lanka domain name registry.

In conclusion, I have to say we have encountered persistent problems in relation to capacity building, and this is another area where governments have to rely on international expertise and private sector support. I would like to say that the battle against cyber-crime will not be lost if there is increased international cooperation. Cyber-crime by nature is multi-jurisdictional, as pointed out by many other speakers, and not confined to one country. As such, governments cannot enforce cyber-crime in isolation. That's reality. This has created increasing pressures on governments, including those from the least developed segments, to harmonize legislation or at least harmonize enforcement processes.

Harmonization has increasingly become a precondition for international cooperation. In harmonization, governments have to rely on international best practices. And one successful harmonization approach that Sri Lanka relied on is the approach adopted by the Council of Europe I mentioned on cyber-crime. And that is one approach that we looked at and we adopted. And we look forward to acceding to that convention in the near future. I take the opportunity to call upon greater collaboration between governments, international organizations, businesses and other stakeholders to address the growing threats associated with cyber-crime.

BERTRAND DE LA CHAPELLE:

I would like to now turn to Dr. Gulshan Rai, who is the director general of the Ministry of Communications and Information Technology in India, and also responsible for the Indian CERT, to ask him a question about what specific types of problems are encountered in India.

GULSHAN RAI:

The information technology infrastructure in India today is a vast fabric of computers from supercomputers to hand-held devices and interconnecting networks, enabling high-speed communications, information access, advanced computation technologies, transactions and automated processes. People in India see and use

the components of the IT infrastructure, mainly desktop computers connected to the Internet, that enable e-mail, instant messages, exchange and downloading of sound and image, online shopping, information searches, interactive games and even telephony. We also work with information technologies that drive day-to-day operations in industry and government and are relied upon by organizations large and small for a range of functions, including design, manufacturing, inventory control, information storage and retrieval, education, training and research and development.

Economists credit successful applications of information technologies throughout our economy for the spectacular gains in productivity over the last five years in the country. Economic potential is increasingly linked to the utilization of the information infrastructure. Today, the computing systems control the management of power plants, air traffic control systems, food and energy distribution and the financial systems, to name only some. Banks, for example, rely on extensive distributed communication networks and information services, both for customer interactions and interbank operations. The reliance of these sensitive physical installations and processes on the IT infrastructure makes that infrastructure extra critical and in the nation's interest to safeguard.

This revolution in proliferation of information technology in every sector of society has also increased the potential of those who could harm, giving them the capability to do so from afar, while armed with only a computer and the knowledge needed to identify and exploit vulnerabilities. Today it is possible for a malicious agent to penetrate millions of computers around the world in a matter of minutes, exploiting these machines to attack the nation's critical information infrastructure.

The threat clearly is growing. Most indicators and studies of the frequency impact, scope, and cost of cyber-security incidents among both organizations and individual point to increasing levels and varieties of attacks. The number of compromised systems is increasing. These compromised hosts are used as a platform for launching further attacks, particularly distributed denial of service attacks or injecting bots or the malicious codes.

The CERT in India has reported about 800 new electronic vulnerabilities during 2007 in the country, which is more than a 24-fold increase since 2001. The total number of attacks, including viruses and worms, cyber-frauds in operations, are rising by about 50% annually, with many types of attacks doubling in numbers. The story about spam is similar –somewhere around 80% of e-mail traffic is spam. A survey conducted by the CERT, as well as Pricewaterhouse, shows that 50% of the organizations providing one or other type of services experienced compromised systems in 2006 or 2007, which is almost double than the figure of what we observed in 2000. The numbers of phishing cases are on the increase among the Indian banks; 78 cases of phishing are being reported on an average per day. Most of the phishing cases are hosted outside, are hosted in one country, registered in another country, where we find problem in disabling them. The most disturbing fact is that there has been increase in the number of cases of cyber-incidents pertaining

to domain name registry. The registrars, the address and the IP address, as well as the address of the registrants, are found to be fake.

Cyber-security requires a strategy involving people, process and technology. We are working with the public and the private sector and other organizations to train our manpower. We are also sending our people abroad for training in implementations of best security practices, particularly in the context of national information infrastructure.

India was the 12th country to enact a legal frame to address the issues in cyberspace – the 2000 Information Technology Act. The legal framework was based on the technology and practices being followed and available at that point of time. The act provided the evidentiary value to the electronic document and included certain computer offenses. Over a period of time, not many offenses and contraventions have emerged. Due to innovation in technology, these informations and offenses need to be addressed for safer working in cyberspace.

We are in the process of amending a legal framework to address issues posed by these new technologies and the new crimes which are being observed in cyberspace. We are amending the Information Technology Act 2000. The amendments deal with data security, data privacy, identity theft, cyber-terrorism. For the first time, we have tried to define cyber-terrorism, child pornography, spam, phishing, and online frauds. The body will have to implement best security practices to secure data collected by them while providing services. Any leakage of data on their account will result in compensation commensurate to the damages suffered by the victim. The service providers will also have to preserve traffic data for a period which can be specified in consultation with the industry. The amended legal framework will be in line with all the provisions of the European Convention on Cyber-crime.

The national CERT is in position, is a part of the Asia-Pacific CERT, and has relationships with many of the CERTs. We have also set up a garment industry initiative, and a company has been set up, the Data Security Council of India, to work with the industry to create awareness and compliance to the best practices among the information technology-enabled services and IT organizations in the country.

The challenge is huge for us to train our police and judicial officers to collect and analyze potential evidence. And we are very actively working in this direction, with the help of a public-private partnership.

Today, over a billion users worldwide connect to the Internet. Over the next five to six years, a more billion new users will join existing users on the Net. With the growth of Internet, the growth of the users, the Internet will dramatically expand reach and scope. Addressing the requirement to secure cyberspace within the country, as well as globally, for the longer term requires collaboration and cooperation among the countries to develop the technologies necessary to design security into computing and networking systems and software from the ground up.

There are several areas relating to cyber-security in which there may be conflicting interests and needs, and such areas will need to be addressed as a part of a comprehensive approach to cyber-security. For example, to track down cyber-criminals, it may be necessary to know the origin of data packets on the Internet. But such knowledge may be perceived by some to conflict with an individual's right to privacy or anonymity. Such issues involve ethics, law and social questions as much as they do technology. And these non-technology issues make the cyber-security problem even more challenging.

There's a need to exchange information without any hindrances among the nations and among organizations to track down criminals. Global alliances and exchange of information have to be established while attaining safety, security and stability of the Internet. Society, the citizens, judges, academia and industry need to work together toward a mechanism for effective collaboration and cooperation so as to work towards providing a safe and secure cyberspace to our citizens. We commit ourselves and will collaborate with any agency in the world to work toward this.

BERTRAND DE LA CHAPELLE:

I would like now to give the floor to Alexander Ntoko, who is the head of corporate strategy at the ITU, and also the focal point on cyber-security, and particularly the initiative that the ITU has launched, which is the Global Cyber-security Agenda.

ALEXANDER NTOKO:

You have heard already about the threats and how complex they are, the need for collaboration, for cooperation. You have also heard from my other colleagues how things are getting even more sophisticated. We are dealing with a problem which is global. I'm not going to get into the specifics of what types of attacks or threats exist, because this has already been covered. The thing which I think is really important is that we need to come to some kind of a common understanding. We need to have some basic rules about how we do things.

What we have done in the ITU as a result of the World Summit on the Information Society, which has entrusted ITU to facilitate and coordinate the global response, is to launch an initiative which we call the Global Cyber-security Agenda. The agenda was launched by the Secretary-General 17th of May last year. We said if we wanted to address this issue which involves so many stakeholders, many of whom are not participating in ITU, we need to come up with a very broad group of experts representing all the stakeholder groups. So we set up a high-level expert group of 101 experts from all over the world, representing industry, governments, international organizations, NGOs, academic and research institutions, because we wanted to see what they thought would be the way forward, what was their understanding of some of the threats and how can we try to capture those common elements.

What we came up with as a result of one year of work was that we had to work on five main pillars, five areas of activities. We cannot address issues of cyber-security

by grouping people into categories and saying, "This is something just for businesses. This is something just for governments. This is something just for civil society." So the way we are going to move forward is to create a framework where people of common interest can meet and work on solutions, regardless of the types of entities. So we came up with five pillars which resulted from the work of the high-level expert group. One is legal measures. The second pillar is technical and procedural measures. The third is organizational structures. Fourth, we need to focus also on capacity building, which is cross-cutting since you need to build capacity in every area, whether it be technical or legal. The last or the fifth pillar is that of international cooperation.

We cannot continue to keep on addressing cyber-security in silos. Because we are all connected, we have a very complex situation to manage. The criminals and those who perpetrate some of the cyber-threats are one step ahead of us, because they are quite organized. So we need to look at how we can better organize ourselves and how we can be proactive. We have to put in place early warning systems that will try to inform people of where the threats are. But what is tricky here is that it is not like a wave coming from the ocean and we know where it is heading and it has a clearly defined destination. But we still must have the capability to be able to raise awareness on certain threats before they get to the victims.

We have, as a result of one year of working within this expert group, we got to a point where we said we need to stop talking, we need to now start acting. We need systems which will be able to, you know, inform people about threats. And just developing a little bit on that, one of the things that we did, we signed an agreement where we are working with quite a number of global security companies who are working together for the first time, aggregating some of the feeds and trying to put together information which would be relevant to keep layers in cyber-security so that they are aware of the threats.

The last thing which I would talk about has to do with harmonization. I think we have to identify those common areas where it is easy for us to come to an agreement. And one of the things that we have done in the ITU is we have said, "If we focus on protecting children, we think it would be difficult for anybody to resist doing that." And we believe that if we start with one area where there is a common understanding that there is a need for something to be done, we can use that and build on other areas. So child protection is an initiative that was launched working with a number of stakeholders, not only with governments.

The key message I'm trying to convey here is that when we are dealing with cyber-security, cyber-crime, we need to work on the basis of what we call those five pillars that I mentioned, because you create a common environment where all interested stakeholders, irrespective of which entity type they are, can come together and work.

So to conclude, basically, we have three things that I think we should do. We need to look at how we look at this problem as a global problem, while acting locally with

all the relevant stakeholders. That's what I mean by top-down and bottom-up at the same time. We need to be proactive. We cannot sit and wait for the threats to hit us. We are all aware of how global early warning systems are being used in a number of domains. The third thing is, we have to be organized. We have to be much better organized. And this organization has to do with cooperation. It is a win-win situation for everybody if we all work together.

Discussion

BERTRAND DE LA CHAPELLE:

Thank you, Alexander. Before we close, if there are any questions, we can take four or five comments.

FROM THE FLOOR:

I am a member of the UK Parliament. I attended WSIS as a Minister responsible for IT, but before that I had some time as a policeman. And it's a point I want to make about the context of our discussion. Can I congratulate you on the expert panel that we have had and the very complementary nature of all the contributions that have been made. My point is about how we deal with crime. Law enforcement and, indeed, law doesn't deal with all activities that are criminal. That's true in the real world. Most serious crime, some less serious crime is dealt with by law enforcement. But most success in the big challenge, which is to cut, reduce, prevent crime comes from a partnership approach to crime reduction. In the UK we have set up local crime reduction partnerships that's dealt effectively with violent crime reduction down to litter and parking fines. My point is that it's true also of the Internet-related crime. We promised in IGF 2007 in Rio that we would set up a UK IGF and that we would look at developing an Internet crime reduction partnership. We have made a lot of progress, and I know other countries are taking that approach. I have no disagreement with anything that I have heard from the panel, but I think one of the big questions for us is how the IGF, in future years, can increasingly be the point where we bring together the experience of trying to cut Internet-related crime at a national level and, indeed, at a subnational level because I believe in the long-term future, the IGF has a big place in that activity.

FROM THE FLOOR:

The panel this morning is excellent but I do have a number of concerns that are still lingering. Everyone has talked about international cooperation, but we all know very well that in the cyber-crime area, the weakest links are the developing countries, and they make the entire chain very fragile. So you want to have alert centers. Let's ask the developing countries, then, at the same time as they are becoming equipped to join the modern society, you want to ask them to have super-armies that are more expensive than the networks that they are setting up? So you are

beginning to understand the difficulties for developing countries to have to face down the challenge of resources to be able to develop, but, on the other hand, to build up these super-armies to combat cyber-crime.

FROM THE FLOOR:

I am from McAfee, developers of security software for computing and for network security. My question is, we have all these products and multiple companies that are building security software and products around the world for various situations. From a private product developer perspective, what kind of participation can we have in the IGF? Maybe like a consortium of software developers to standardize on logging forensics and basically evidence building. It's just a question, because I'm not sure what we can do as much as we are very keen to participate.

FROM THE FLOOR:

I'm from India. As we try to reach out or provide access to a billion people or the last billion, many of them will be children and young people, and a large section of them will be from Asia. At a time when there is so much hatred and hate campaigns and violence spread through the Net, should we not network with the educational departments and other stakeholders so that we are able to sensitize the young minds, impressionable minds through the hazards that are coming to us through the Net?

FROM THE FLOOR:

I am from ANACOM Portugal. I congratulate you for the panel you have presented today. I would like to highlight also some work done by other organizations, like OECD, on this material. And I think it would be important to have them present their point of view this afternoon. And I would like to issue a question on how you sustain and build knowledge on security. Not from an individual perspective, but by teamwork.

BERTRAND DE LA CHAPELLE:

Thank you. I think the point about interaction with other organizations is key. I will end up my role as the moderator of this panel now with one word that emerged through the discussion, which is the word trust. It turns out it means three things concurrently. One is the trust in relations between the people who handle cyber-security issues. The second is trust as a goal, that we want to have a network that people do trust. And the third element that was alluded to and that we can discuss in the future is how we can, as citizens as well, trust the procedures that are put in place to handle cyber-security and cyber-crime threats. With this, I hand it over to our Chair.

R. CHANDRASHEKHAR:

In conclusion, I would like to compliment all the panelists on having brought out so very clearly and explicitly the many kinds of threats that are facing not only the

Internet community but, in fact, the Internet itself. And also, I think a repeated point which is brought out by everybody is the chilling fact that those who are out to cause these problems are quite often a step or two ahead of those who are engaged in solving the problems. And also the fact that all of us are a part of the Internet. We are not an extension of it, we are not an attachment to it. We are part of the Internet. And we could actually wittingly and unwittingly be a part of the problem as well. But we most definitely need to be a part of the solution to these problems.

I think what came out very clearly in the various presentations, which I don't need to repeat, are some of the possible actions that can be and, in fact, are being taken in some countries, and also some of the limitations of these actions. I think that was also very clear from the presentations. Equally, who are the players and who are the entities who might take some of these actions and who need to do certain things? But notwithstanding all of that, the fact remains that there are still a number of open questions on how exactly this collaboration between all the entities that are involved in being a part of the solution and how exactly the trust that was repeated in a recurring theme could actually be built up in a workable and pragmatic manner to solve the problem of cyber-security that is still out there.

Panel Discussion on Fostering Security, Privacy and Openness

Chair: Mr. Shyamai Ghosh, Chairman, Data Security Council of India (DSCI)

Moderator: Ambassador David A. Gross, US Coordinator for International Communications and Information Policy

Panelists:

- Mr. Abdul Waheed Khan, Assistant Director General for Communication and Information, UNESCO
- Mr. Stefano Rodotà, Professor, University La Sapienza, Rome
- Mr. John Carr, Secretary of Children's Charities' Coalition on Internet Safety (CHIS)
- Ms. Jac SM Kee, Association for Progressive Communications (APC)
- Mr. Joseph Alhadeff, Vice-President, Global Public Policy and Chief Privacy Officer, Oracle

Extracts from the Transcript of Proceedings

Introductory Remarks

SHYAMAI GHOSH:

We have a very interesting subject before us, particularly following from the previous session: fostering security, privacy and openness. I would add to that the right to information, which is a building issue in our country. I am sure the panelists will address whether it is a conflict situation or a converged situation. Conflict in the sense of national security versus security for privacy, and the right to information. Convergence in the sense of security, privacy and openness being mutually reinforcing preconditions for users. And by stepping up levels of user security and privacy, confidence is engendered for use of Internet and facilitates free expression of opinion.

As is becoming clear, Internet has become a way of life for the young and particularly old like us, who are self-employed and we can't do without the laptop 24 hours a day, seven days a week. In the Indian context we have an amazing story where nine million subscribers are being added every month. We have gone from 2% penetration of telephones in 2000 to 30% now, but there are challenges. The rural population is still to be covered. How can they be brought into the mainstream? Internet broadband penetration is very, very low still. And one of the challenges which I faced as the administrator of Universal Service Fund is how to reach out. A solution which has been found is to support infrastructure through the

universal obligation to fund infrastructure, which will be shareable. And that will be the towers which will help penetration in the rural areas. WiMAX is a solution which we have eagerly looking forward, but at the same time, incidents of the past few months have brought out the need to create user awareness for technologies like Wi-Fi. Your identity can easily be stolen, if you are not careful, you don't know the do's and don'ts in this regard.

I will now hand over to my esteemed colleague, Mr. Gross, and he will now take over the management of the panel.

DAVID GROSS:

Let me begin by a couple of thoughts. One is that the issue of security, privacy and openness is, in my view, going to be the centerpiece for policy discussions for the next many years. I say that in part because if I look back on the past eight years or so, these have not been the front-burner issues, which is an interesting situation because if you go back into the 1990s the issues that we are going to be discussing here were, in many respects, the burning issues of the day. What I would suggest is that those embers have continued to burn and are about to flare up because they discuss the confluence of societally important issues that are, in many respects, in conflict with each other and yet are additive of each other: security, privacy and openness.

I want to list what I think are some of the relevant international statements that are important in this area. I always begin with the Universal Declaration of Human Rights with regard to the free flow of information. I think, of course, of the World Summit on the Information Society. In the Geneva phase, there were good statements, but in my view, the Tunis Agenda was a high watermark for the commitment to free flow of information, both in paragraphs 4 and in 42. Just this year, we have had a number of important developments. One is the OECD ministerial that we had earlier this year where there are important statements on the free flow of information. Just very recently, the International Telecommunications Union met in South Africa at the World Telecommunication Standardization Assembly, not often thought of as a place where free flow of information issues are discussed. But in fact, Resolution 69 that was offered there is, I think, an extraordinarily strong statement about the free flow of information in which member states were invited to refrain from taking any unilateral or discriminatory actions that could impede another member state from accessing public Internet sites – and it was made clear that "member state" includes its citizens. That means, in my mind, that countries around the world have now unanimously and by consensus agreed to allow their citizens to have access to the world's Internet sites. And then very recently, in a nongovernmental context, there is the Global Network Initiative that a number of NGOs and companies came together to try to address the issues of protecting freedom of expression and privacy for users in ways that are, I think, very ingenious and very interesting to look at.

Presentations by the Panelists

JOHN CARR:

It was interesting that the treaties and documents you just referred to as being the cornerstone of many of the debates that we're here to address didn't include the United Nations Declaration on the Rights of the Child and the European Convention on Cyber-crime. These are just two important international treaties which create specific legal obligations on states and actors within states to provide for the protection of children. And what I think hitherto we have not seen addressed adequately is the way in which we integrate and balance the obligations on states, on adults in general, on businesses and so on to provide adequate protection for children with the other rights referred to in your opening remarks in relation to free expression, privacy and so on. There are tensions which can be resolved, but nonetheless, they have not yet been fully addressed, in my opinion, and perhaps today's session will see the beginnings of a more serious discussion on that.

Very briefly, as we know, children have been and will remain major beneficiaries of the new technology. Most children have no fear of the technology, unlike their parents. And as we say in English, they have taken to it like ducks to water. And so children and young people generally are benefiting from what the technology can deliver. But wonderful though that technology is, and fantastic though the range of opportunities that it's opening up for children and young people in general is, we cannot remain blind to some of the downsides not yet being adequately addressed.

There are five broad categories of risk that we need to bear in mind when we think about young people's use of the Internet.

Content is the first and most obvious issue. That's to say the Internet's ability to expose children and young people to age-inappropriate material. Some of it may even be illegal material; for example, such as child pornography.

There are other issues in relation to contact, the way the Internet is able to facilitate exchanges, for example, between sexual predators and vulnerable children. And numerically, this is by far the more important issue for children and young people, the way in which the new technology is facilitating and enabling new styles of insidious bullying and online harassment.

There are issues in the field of commerce, the way in which some Internet companies seek to sell to children and young people, take advantage of their less worldly-wise ways, dodgy products or to misrepresent the terms on which those products or services are to be offered or in which they seek to obtain commercially sensitive or commercially valuable information from children, taking advantage of their naivete.

There is the question of addiction, the way in which some children appear to be drawn into overuse of the technology, which can be at the expense of normal and healthy development of social relationships, taking exercise and that type of thing.

And finally is the issue of privacy, which cuts across several of the ones that I just mentioned. But what right to privacy does a legal minor have vis-a-vis its parents, vis-a-vis its school? How do companies determine whether or not they have in fact obtained true consent from someone old enough to give it? How do companies know, for example, if they are selling an age-restricted product to somebody that is legally entitled to buy it? We have had several cases in the United Kingdom where children are buying alcohol, tobacco, knives, and getting the companies to deliver it to their home. They couldn't go into the shops and buy these things because the shopkeepers would see that they were children and simply prevent them from buying those goods. But these things are being supplied to children over the Internet. They don't even have to have the inconvenience of having to carry the goods home.

One plea that I want to make, and it's a very heartfelt plea: when companies, Internet companies and governments speak about reaching out to children, families and parents, they seem to think that all children have got identical IQs, live in equally stable family settings and have got an equal facility to receive, understand and act upon messages. Parents and families are all somehow modeled on some idea that, in my experience, doesn't exist, certainly doesn't exist for every child. We have to get more sophisticated in the way that we think about approaching children, young people, and thinking about how we support families and parents to help their own children.

JAC SM KEE:

I'm going to introduce into the whole debate about privacy, openness and security the dimension of women's human rights. This is particularly critical because, historically, by introducing women's human rights into particular debates, it has not only deepened our understanding of what the issue is, but also has facilitated more inclusive and comprehensive responses. So, in particular, I would like to speak on the issue of sexual rights. Why are we talking about sexual rights? This is because sexual rights are often brought up as a form of discourse that's mobilized to justify content regulation interventions, or to talk about issues related to openness, security and privacy.

So what are sexual rights? Sexual rights is basically a state of physical, emotional, mental and social well-being that relates to sexuality, not merely the absence of disease, dysfunction or infirmity, but it also requires a positive approach to sexuality and sexual relationships as well as the possibility of having pleasurable and safe sexual experiences, free from coercion, discrimination and violence. So numerous human rights have a direct bearing on sexual rights and sexual health. This includes the right to liberty and security of the person, the right to be free from torture and inhuman and degrading treatment, the right to private and family life, the right to nondiscrimination and the right to information and education.

So we're looking at these three concepts that apparently are in tension with each other.

We are talking about openness. The free flow of information, the ability to be able to acquire relevant and timely access to information that directly impacts upon your life. When you look at sexual rights and women's sexual rights, in particular, this is very critical, because the Internet doesn't exist in a vacuum outside of social relations. We have to locate this within the social, political, economic and cultural context that we exist in. Women's sexuality has often been constructed as passive, and it has a whole cultural connotation of shame. It's hard to exercise sexual agency without some kind of cost on the individual. The Internet has provided a kind of critical space to enable women to explore and self-author their sexual agency, to be able to acquire information about sexual and reproductive health that may or may not be available in other sorts of public spaces – for example, about abortion or about negotiation of condom use by teenaged girls. And also about exploring a more active form of sexual expression. So the Internet has also facilitated what is now known as erotica, depictions or expressions or explorations of sexual encounters, behaviors online made by women for women that put women as the sexual actor, not as the object that is being acted upon, which is found in most mainstream pornography. It's also become a critical space for women of marginalized and diverse sexualities to network, to exchange information and to be able to build communities with each other.

This is where it intersects with issues of privacy. So it becomes very important for women who are accessing information or interacting online to be able to feel safe in the space, to not be subjected to intrusion or surveillance either by people within their community or their families. For example, for a domestic violence survivor, it's critical for her to be able to go online to find support information, and that it's possible to delete her footprints online. There are communities working on diverse sexualities in very prohibitive contexts who found it very necessary to be able to learn tools for secure online communications to anonymize themselves and to build Web sites based on this, because it's critical for them to be able to mobilize and advocate for their rights.

In terms of security, we're starting to realize the different forms of security issues there are for women who are accessing online spaces. The intersection between violence against women and communication rights has revealed the many dimensions of power relations that exist in this online space that either amplify or disrupt what's happening in our social spaces. For example, things like online harassment or cyber-stalking, which we are only beginning to understand. Things like using GPS technology to track spouses who are being controlled in domestic violence situations, and at the same time, reclaiming these technologies to disrupt what they're being used for. There's a very famous instance of women in Afghanistan who put video cameras underneath their burqas to document violations against women's rights in very oppressive situations, and use the power of the Internet to be able to safely and anonymously disseminate this through a video viral.

When you think about this, through a lens that understands dangers and risks to certain kinds of rights, not just in terms of the state versus the individual or the

corporation versus the individual, but also in the terms of the shifting dynamics of social relations between individuals, things like privacy become interesting. The concept of privacy has not been very kind to women when it's applied in law. It took many years for domestic violence to be understood as a crime, because privacy wasn't linked to the body but instead to the home. And since the home belongs to the head of the family, which is usually male, intervention into the home becomes a problem because you're intruding into the man's right to privacy.

When we talk about harmful content online and harmful practices, such as what's happening in social networking platforms, we must locate it in its social, cultural, political, economical context. It is connected very much to what's happening in the real life. And when we talk about harm, we can't be simplistic. We have to interrogate it, unpack it. What is this harm? To whom? Who defines it, and who participates in this decision-making?

JOSEPH ALHADEFF:

I'm going to start by referencing one of the documents that the Chair brought up, because it gives us a little bit of context as we look at the concepts of privacy, security and openness. One of the things the OECD Seoul ministerial concluded was the importance of information flows, ICTs and innovation to economic growth, to societal interaction and to the benefits that arise, while recognizing that there are risks associated with the use of these technologies and the need to address them in an appropriate fashion. That was an interesting concept, because I think we have to understand the utility of this context as we look at it and as we look at the potential benefits and tensions that are inherent in the overlap of the three topics we're dealing with.

I think a number of issues that were raised at the DSCI Nascom meeting that was referenced also are important, because we focused on the cultural aspects of privacy. Privacy, unlike security, has a greater subjective aspect that is more tied to local culture. Password security is not an issue of local culture. But how you deal with information and control over information has many issues that are locally relevant. So when you start entering into a position where we have global information flows, but you still have regional and local regulation, you start understanding some of the complexities that are inherent in this space.

You then take the concept of Web 2.0 technologies, some of these more collaborative and interactive technologies, which create the idea that information again is less tied to geography, that users are now creators and publishers, and that you have generational and geographic attitudes and values related to privacy that are changing. When we take a look at those issues, we come into the area of privacy, security and openness, and we try to figure out where's the overlap, where's the mutual reinforcement and where's the tension. And as we look at these, there was one question that was asked by one of the early speakers in the first panel that was very pertinent. What kind of security do you want and how much security is enough? Those are the kinds of questions where you actually look at some of these tensions and how they're resolved. What you really want is security

to be effective. You want privacy to be respected. And you want an open framework to enable transparency and free flows of information.

When you look at privacy and security, in many cases you have the possibility of having mutually reinforcing concepts and technologies. We are well familiar with databases. When we look at database technology, there are a lot of technologies that were built into the database initially to promote security. The type of audit protocols you have, the type of role-based access controls you have, were very much security tools when they were built. But they have a privacy effect when you think of configuring them the correct way. And when you think of security and privacy and you configure them to optimize the combination of both, you actually get a very interesting equation where one plus one equals three. And while that might not be good math, it's a good result. And so that's one of the things where you have to think about how do privacy and security become mutually optimized, because it doesn't have to be a balancing on those issues.

Now, there are going to be places where you have tensions and you do have to have some kind of balance. For instance, within the European Union companies have a responsibility for protecting their customer data. There's also a responsibility for having some privacy and respecting employees in the workplace. There you have a tension on how much monitoring is appropriate and a balance that has to be reached. And that's the kind of balancing where a stakeholder consultation and consultations with data protection commissioners are important ways of finding the appropriate resolution to those issues.

You'll find that you have the same things with openness. The issue of transparency and the issue of notice are very important issues that promote openness. You have free flows of information. However, if you are completely open about how you configure your security, you have provided information on how to compromise your security. So that is a place where you have some tensions. If you are completely open about certain types of information, you violate obligations of confidentiality that you may have to your customer, to your employee, or to others. So, again, those are areas where you have to resolve those tensions, but where there are also mutually reinforcing possibilities.

One of the things I want to come out of this is that you don't have a simple, black and white solution. The question is, how do you best optimize? There are a lot of elements you are managing, there are ways to manage them with the greatest optimization, and you have to have flexibility in the frameworks. One of the things that was said this morning was that a one-size solution does not ever work. In security, it doesn't work. In privacy, it doesn't work. And while the word I'm going to use has a technical meaning, I am using it in a much broader fashion. What you have to look at is how to develop interoperability – how you make different frameworks work together. We are not going to get a unified framework of everything for everybody, and it may not be beneficial to have one. But you do have to have frameworks that talk to each other, that work together, that allow you to collaborate and work cooperatively.

STEFANO RODOTÀ:

We live at a time when the issues related to the protection of personal data exhibit a remarkably contradictory approach – speaking frankly, a veritable social, political and institutional kind of schizophrenia. There is increased awareness of the importance of data protection as regards not only the protection of private spheres of individuals, but also their very freedom. At the same time, internal and international security requirements and market interests are pushing towards the erosion of fundamental safeguards.

The multifunctionality criterion is increasingly applied, so that data collected for a given purpose are made available for different purposes. Data processed by a given entity are made available to different bodies, public and private. Reuse and interconnection are the leading criteria. May we react to this trend and find a more sound and correct balance between data protection and security, data protection and market logic? Look, for instance, at two important international documents, the Charter of Fundamental Rights of the European Union, and the European Convention on Human Rights. These two texts state that limitations for security purposes never can impinge on the essence of the right to data protection and that they must, in any case, pass a preliminary democratic test.

Having in mind this basic criterion, we need a positive reinvention of data protection, because of many technological and institutional changes.

For example, social networking, YouTube, Facebook, MySpace, have deeply changed the context of data mining and profiling, because informations are made public by the same data subject. It means that we must rethink the rules on data collection and access on both sides, data subject and data collectors.

Second, the digital person is under attack. Through massive profiling, identity is more and more built up by others. Pressures for trace-back are making anonymity disappear. Can we accept our societies being converted into nations of suspects? The transformation of people into naked individuals?

Third, we are facing changes because of the diffusion of devices like electronic bracelets, wearable computers, microchips on the skin that can be read through the technology of radio frequencies. Can we accept people be converted into networked persons, tracked and traced, configured little by little, in order to transmit signals so that we can be continuously controlled?

Finally, it has been proposed to retain all data produced by people, which could be dramatically risky in the perspective of the coming Internet of the things. Can we accept this digital tsunami?

Answering these questions, we can find a renewed and strong legitimization for data protection looked at by many people as a fundamental, fundamental right.

ABDUL WAHEED KHAN:

UNESCO's constitution, which was created some 61 years ago, talked about free flow of ideas, information and knowledge. As was mentioned, several declarations in recent times have reiterated this fundamental principle of free flow of information and knowledge. All of this, of course, is anchored in Article 19 of the Universal Declaration of Human Rights, on freedom of expression and freedom of the press.

In recent years, we have talked about this fundamental principle not only applying to the traditional media of printed press, radio and television, but to new and emerging technologies – what we call the freedom of expression applying to technologies without frontiers. I'm sure there will be new other technologies developing, and, therefore, as far as we are concerned, the fundamental principle of freedom of expression should not be compromised, whether in respect of old medium or new medium.

If I can take you back to the World Summit on the Information Society, UNESCO advanced the notion of building knowledge societies. And we talked about four fundamental principles of building knowledge societies: freedom of expression, universal access, respect for cultural linguistic diversity and quality education for all.

We believe that the concept of openness applies to each of these fundamental principles. Freedom of expression, it is obvious. When you talk about universal access, how can you have universal access without relying fundamentally on the concept of openness? The respect for cultural and linguistic diversity, likewise, has to rely heavily on the notion of openness. And quality education, through flexible learning or e-learning or online education, will be restricted without relying fundamentally on these basic principles. Yet there are attempts made to curb freedom of expression and free flow of ideas through technical means, for example filtering or blocking software on servers, financial means such as high taxes and tariffs, or special laws to block sites. In our view, the fundamental principles that govern the Internet and its structure must be transparent and democratic, multistakeholder approach, facilitating access for all and ensuring a stable and secure-functioning Internet.

Mr. Chairman, in your remarks, you mentioned that the security, privacy and openness on one hand may appear to be somewhat conflicting ideas. But on the other hand, you can also think of convergence between the three. And I think the world will be a better place if we look for those convergences. However, in doing so, I would strongly urge that we maintain the principles of openness and freedom of expression as a priority element in any future discussion and policy-making decisions.

Discussion

DAVID GROSS:

I'm going to start by asking a couple of what I hope to be reasonably provocative questions.

John, I'm going to put you on the hot spot first. Jac Kee made what I thought was an extraordinarily articulate set of statements about the importance of communication to talk about issues that are of great importance to people, their human sexuality and the like. You have talked about the rights of children. You have talked about content and concern about contact and the like. Let's take the issue of child pornography off the table. In my view, that's the easy case – I don't know anybody who is for child pornography. Let's talk about teenagers, who are generally considered to be children, but yet have a lot of the rights of adults. Tell me a little bit about how and by whom we should draw the line about issues of importance to teenaged women, to have access to sexual information and to be able to communicate with each other.

JOHN CARR:

Well, clearly, it's incredibly important that teenaged women, teenaged boys for that matter, can get access to relevant and appropriate information about sexual health. If they weren't able to do that, not only would they be putting themselves at risk, but also they'd be putting other people at risk. I don't have a problem, in principle, with any of the points that were made by Jac Kee in her contribution. The issue arises in a broader context, which is simply that every society I'm aware of has passed laws and/or has quite strong social conventions around what's considered to be acceptable for legal minors. I don't see a reason why the Internet should be exempt from the same conventions and the same rules in principle.

To some degree or another, I think we're still all struggling to come to terms with some of the rather windy rhetoric of the early years of the Internet, when it was seen as a means of doing away with the old order altogether. Well, now that you buy your Internet access with your TV, the Internet's become, essentially, a consumer product, it's a family product, hundreds of millions of children and young people are using it, we can no longer think about the Internet and Internet policy without also thinking simultaneously about how this or that decision will impact upon hundreds of millions of young people. Yet, in the document produced by the Global Network Initiative, there's no discussion about the rights of children, the rights of young people. There's no attempt to balance, in that document, the issues of how the Internet is impacting upon young people and young people's development. I think that's very regrettable, and I hope the same energy, resources and impetus that were behind the development of the Global Network Initiative, for example, can be put behind a debate about how we do balance out these different tensions and different conflicts.

DAVID GROSS:

Jac Kee, let me ask, did that sound right to you? Do you believe that it should be left to traditional norms, which are often government-created norms, to determine rights of information for teenagers, non-majority children, but yet have a lot of the indicia of adults? What is the appropriate role for governments? Is it up to the individual? Is it up to the family?

JAC SM KEE:

I think that the role of Internet governance is to see how you can create an Internet that empowers the users and the people to be able to realize the multiplicity of their rights. And these rights are not neutral. They are not apolitical. And I think the difficulty that comes with talking about protection of children is that it's also about sexually explicit content. This is where we talk about regulation of free flow of information. This is where we talk about setting boundaries of what can and cannot be done. And many times it is done with very genuine kinds of intention to protect and to create safe spaces. But the difficulty comes when we rely on norms as meaning things which are normally accepted as correct, and things which are deviant from the norms are those which are punished or sanctioned.

The Internet is a very, very valuable space to explore what is considered as deviant norms, especially when it comes to issues of sexuality. So, for example, in a country where abortion is illegal, the Internet becomes a critical space to find out more about what this means, what the processes are, who can help you and what kind of decisions you can make about your own body. We do live in a gender-disparate world. You know, in all the institutions where decisions have been made and disseminated about norms – whether it's mass media, whether it's the government, whether it's religious institutions – you will find there are not many women present who are able to engage and participate in this decision-making, whether formal or informal.

DAVID GROSS:

Secretary Khan, let me put you on the spot here. You spoke about the importance of free flow of information. We have heard about the role of protecting children and the role of governments and other traditional norms. We have heard about the importance of access to information, particularly global, because you can get access to important information about yourself and about the changing norms and the like. Who sets the limits? Is this for governments? Families? It can't be, as we have heard, one-size-fits-all. How do you try to analyze this? Who are the actors and how do the decisions get made?

ABDUL WAHEED KHAN:

Clearly, I think one of the things that we, as human beings, are empowered is to look for solutions. No law is forever. However, there are certain fundamental issues, such as freedom of expression that the world adopted and enshrined in Article 19 of Universal Declaration of Human Rights. Now, most societies legislate their own

laws to deal with the specific issues. If certain activities are regarded as criminal activities, the law of the land is often able to deal with those activities specifically. But that does not mean that you dilute the fundamental principles; in our case, the freedom of expression.

DAVID GROSS:

Joe, let me put you also on the spot, and since you are the representative of the corporate world. We've talked a little bit about the role of individuals and families and governments in making some of the rules with regard to free flow of information and these difficult issues, but there is also an important role with regard to companies, and particularly for ISPs and the like. How do you think these issues should be dealt with? Are these issues that the free market can determine? Is it left up to governments? Is it left up to individuals and to families? Or is it left up to companies?

JOSEPH ALHADEFF:

Well, I think when you look at these issues, you have to look at the fact that there is a multiplicity of actors that you are dealing with. And what you have in the market is a number of different styles. This isn't a new issue. When you first started having service providers on the Internet, there were different models. There were some models where they were trying to create a safe place for families, and so they limited content in a much more dramatic fashion. There were other ones that were merely giving you connectivity and they weren't really limiting access or content. And there were some who were attempting to take people who hadn't really had familiarity with the Internet and attempted to give them the guided tour. And so you had hot buttons to hit for certain types of content and certain types of Web sites.

I think there is no one entity that can make all of the decisions. Companies will take things that are appropriate to business models, appropriate to the laws they operate under, and will attempt to factor those in and provide notice of how they have done that factoring. They cannot provide transparency to the level of individual decisions because you will stop being able to do any business if you get to that level of granularity. But the framework conditions are usually something that are disclosed in the policies or terms related to the Web site. That enables consumers and citizens to make certain choices about what type of sites they want to use and what they can expect to get from those sites.

I think on the Internet, it's much more of a community-based concept now than it ever has been before. The idea that there is just pure regulation and just pure actors upon which regulation takes place is no longer really the fact. You have people working with people in the regulatory structure, so you have public-private partnerships and ways in which those discussions are happening. You are having much greater communication with stakeholders in the process as well, and much more collaboration and consultation.

I think the dynamic which will change this even further is when users become their own publishers. Because then, it's not a corporation anymore. It's a person on their own computer who is creating a blog or creating other things, and they might still be using an ISP for the communication, but they are in many ways an actor in and of themselves.

So I think we are in a fluid area, and the answer is everyone is part of the team in terms of making decisions because it's a question of a multiplicity of options, a multiplicity of ways of doing things. And I think there is a need for inherent flexibility, but you do have to get to the point where abuses that may be created because of that flexibility also need to be dealt with. That's where we get to the more obvious things such as child pornography that have to be dealt with. You can't have a Web site that says we would like to promote and post child pornography. That is just not acceptable. So there are some norms beyond which you don't go, but I think there is a large flexibility among the other things. And choice, in many ways, actually helps people.

DAVID GROSS:

Professor, Joe touches on this idea that basically you let a thousand blossoms bloom and let people pick which flowers they would like. Does that really work in a global environment where you have various cultural, historic and other norms that are important to cultures, and something that's acceptable in one place is unacceptable elsewhere?

STEFANO RODOTÀ:

We need kind of intercultural dialogue in this field if we look at the global dimension. At this very moment, we are facing multiple data protection models. If you look, for instance, to the European Union, there is a progressive uniform harmonization of the rules, and this model is now an important tool in the global dialogue. Why? Because if you need personal data from the European Union, you must have legislation giving adequate protection to the information transferred from other countries.

When you look at the new phenomena, like Facebook and so on, I think we have to look to a common resonance. In this, the Internet Governance Forum is playing an important role, giving support to the idea being called the Internet Bill of Rights. This is a crucial point and important approach. We need some common rules. But it does not mean that we have to go through traditional avenues, negotiating a convention. We need a multistakeholder and multi-level approach. It means that for some areas, we need rules. In other areas, we must recognize that codes of conduct are today the only valuable approach.

So I think that we need dialogue, we need global awareness, we need this idea of – I use the words Internet Bill of Rights – as a process, not as a negotiation of a traditional convention top down. We are living in a world where the procedure is more and more bottom-up. This is the right approach, in my mind.

JOHN CARR:

I just wanted to come back on the point that Joe made, saying that everyone is part of the team. That's simply not true. It's certainly not true in the UK. Time after time, surveys by independent academics, talking to parents, for example, about their children's use of the technology, reveal that a good number have no idea how to grapple with some of the essentially technologically based challenges or issues that their children are having to deal with. One of our big mobile phone companies did a survey which showed that parents who had just bought mobile telephones for their children had no idea that these devices allowed their children to connect to the Internet.

Now, what do we do about this? I think what some companies are saying is there is really nothing we can do about this. It's not our responsibility. And it's just kind of tough on the kids of those parents who haven't understood some of the issues here. I don't accept that. I think that companies have a responsibility, if they are selling a product that can put children at risk, to provide that product in the safest possible condition that it can be at the time of delivery. I admit after that, it gets more complicated. But certainly at the point that the computer or mobile phone is sold into the domestic market where there is a reasonable supposition that children or young people are going to be using the device or using the connectivity, I think it is incumbent upon the seller to make it as safe as it can be. At the moment, it is completely the other way around. A computer or a mobile phone can be sold into the domestic market knowing there is a very high chance that children are going to be using it, and then the companies trust to luck that the parent will find out that there are issues, will act upon it once they found out, will act correctly, and will sustain that over time. And I don't think that's a reasonable way of dealing with it.

ABDUL WAHEED KHAN:

As technologies develop, and as more and more people use media and technology, there are studies that show that the children are spending more time with both new and old media than they are spending in school and with parents. So your point is well taken that it's unthinkable that the exposure that they have to the media and its content will not have some kind of impact on their psyche. There is clear evidence that that is already happening.

We at UNESCO have been talking about media literacy and information literacy for quite some time. If parents need to be educated, how best to use the technology for the growth of their children, I think, first of all, they have to acquire information literacy and media literacy. And therefore, in the new wonderful world that we live in, the three R's that we were used to, reading, writing and arithmetic, are no longer sufficient. It is important for a forum such as this to recognize that new literacies are as vital, if not more vital, than the three R's that we have been used to.

SHYAMAI GHOSH:

I thought I would comment on the issue raised by Professor Stefano. If every country insists that you follow my rules for cross-border data flows, then data flows

will never happen, because it will be impossible to replicate a legislative regime of one country in another. And Mr. Khan has raised very valid issues, in the sense you have freedom given to you, but the catch is reasonable restrictions. What is reasonable restriction? As again, it's varying from country to country. We are dealing with a global situation. I think more conventions that can be evolved at an international forum like this would help facilitating everybody, while addressing all the concerns which we have.

JOSEPH ALHADEFF:

I think there are legitimate points to be made about making sure there's information about what features are available, making sure that you have technological capacity to do some level of blocking and control, especially for technologies that children may use. But I also think there's some level of responsibility that the parents need to take. You can't say that any phone that may be sold in the domestic market needs to essentially be disabled from having any connectivity, because that's not a viable option.

There has to be some middle ground. There's a principle in the OECD security guideline that essentially says, each according to their role. I do think there's a responsibility for all actors to play. And there's no question that there's unequal information. People need to do a better job of getting that information out there. But part of the problem is parents are buying a phone without going to the phone store and saying, "By the way, I'm buying this for my kid. Is there anything I need to know?" We need to get to a place where there is a better understanding.

The last point is we are in a situation which has not happened before, as far as I know, which is that the kids are much more technologically sophisticated than the parents. In fact, some parents who use the technologies don't use them well enough to block the kids, because the kids know the way around them. So this is a situation where the adoption of the technology and the knowledge of the technology by the people who are "at risk" is actually at a much higher level than the people who are attempting to control them and create benefit for them. So I don't exactly know the way that education can happen in this space. I think it definitely has to be a public-private partnership, where multiple venues of education are the best way forward. But I do think we have to have the concept of responsibility across the broad range of actors.

One comment to something Professor Rodotà was talking about. One of the other regional approaches to privacy has been that of APEC. There's an interesting concept in the APEC approach: the concept of accountability, which also exists in the OECD guideline and is inherent in the EU directive. It's the idea that obligation flows with information. That helps one move across boundaries because one of the problems you have in an adequacy concept is that you have to find another region to be adequate, and that is a time-intensive and labor-intensive process which has only happened with a handful of jurisdictions to date. So I think one of the things we learn in the accountability concept is that there may be contractual or technical methods in which the information is given similar protection to that required in its

country of origin, but in a way that doesn't require a change of legal framework in the location where the information is received.

DAVID GROSS:

Let me suggest for the open dialogue a couple of additional things that were touched on but we didn't have time to get into. One is the issue of being anonymous on the Internet. If you are trying to get to information that you don't want everyone else to know you're trying to access, or on political speech, anonymity can be very important. On the other hand, in an age where we have terrorists and a whole host of social problems that require people to be able to find out who is speaking, whether it's protecting potential predators or protecting children from predators, the ability to be able to track people down, to know who are you dealing with for fraud issues and otherwise, is a very tough and interesting set of challenges. What is the role of authentication? What is the role of anonymity on the Internet?

SHYAMAI GHOSH:

I think several issues have been raised which can be taken up in the afternoon session. It's not an easy issue to deal with. The challenge is, how do you convert areas of conflict into areas of convergence so that both the issues are addressed in the proper perspective? And there is a possible view that many of these will have to be decided in a multistakeholder environment. And perhaps the IGF, under the UN auspices, would be a proper forum for taking up this particular issue as to how do we take forward situations of conflict into convergence.

Open Dialogue on Promoting Cyber-security and Trust

Co-Chairs:

- Mr. Pavan Duggal, President of Cyberlaws.Net
- Mr. Gu Ishan Rai, Director, CERT – In

Moderator: Mr. Jonathan Charles, BBC Foreign Correspondent and News Presenter

Co-moderators:

- Ms. Natasha Primo, National ICT Policy Advocacy Coordinator for the Association for Progressive Communications
- Mr. Everton Lucero, Counselor for Science and Technology at the Embassy of Brazil to the United States and Vice-Chairman of the Government Advisory Committee (GAC) of the Internet Corporation for Assigned Names and Numbers (ICANN)

Extract from the Transcript of Proceedings

Introductory Remarks

JONATHAN CHARLES:

What we want to come up with today is to try to work out some of these tradeoffs between security and the need to keep the Net dynamic and open. And also what role can we play here in the IGF on trying to take the debate forward and trying to come up with solutions to what has seemed quite an intractable problem.

I'm going to start by introducing one of our co-Chairmen here. We are joined by Gulshan Rai. He is director of the Indian Computer Emergency Response Team. He's going to say a few words. Then we're going to hear from the rapporteurs from the two sessions today. Then we start throwing it open to the debate.

GULSHAN RAI:

The Internet and mobile telephony are inseparable from our day-to-day life. Today, we have more than three billion mobile connections in the world and more than one billion Internet users, but we still have to realize their potential. The reason is the lack of trust of users, particularly in e-commerce and other financial applications. The user is worried about cyber threats, like viruses or trojans or identity theft. Organizations are worried about the stealing of data or the malfunctioning of the infrastructure.

In the sessions this morning, it emerged that there are five pillars of cyber-security: legal measures; technical and procedural matters; organizational structures; capacity-building; and international cooperation. This all has to be looked at in an integrated manner if we are to provide a safe and secure cyberspace to our citizens and to users, which they can trust.

Report of the Panel Sessions

JONATHAN CHARLES:

Let's start by recapping the main points of the two sessions we had earlier today. First of all, let me call on Bertrand de la Chapelle.

BERTRAND DE LA CHAPELLE:

A few points. The first one is the notion of prevention – proactive measures to make attacks and exploits harder, and to have a more resilient architecture. The second point is the notion of a feedback loop between prevention, analysis of incidents and remediation, the three feeding in one another to increase awareness and knowledge about how to respond to attacks. The third thing is the notion that there are a large number of actors that are involved in prevention, remediation and all those issues. They are from all categories of stakeholders. The building of trust networks among those actors is essential, and it requires time. The fourth point is the notion of avoiding to address issues in silos of actors, but instead to organize discussions on an issue basis and bring all the actors together in a multistakeholder fashion. The last question was the role of the various organizations that are dealing with those issues in various regions and in various categories of actors and how they can interact with one another.

ANRIETTE ESTERHUYSEN:

We had a really interesting debate during the second panel of the morning. If I have to resume with five points, the first one will be the role of the Web 2.0 in the protection and preservation of privacy, security and openness, and particularly how privacy is related to these new technologies. A second point, the importance of freedom of expression, access to information and global information flows, and how to preserve and enhance those rights in the Internet. Then a third point on the importance of information literacy, on being able to use those technologies to understand their potential and risks. A fourth point, how do we deal with different cultural, legal frameworks across countries? The fifth point, if in the debate on privacy, security and openness we have several stakeholders, how can we find a common ground, and how can each one of the stakeholders with his role help define the spheres for security, privacy and openness?

Discussion

JONATHAN CHARLES:

Let me start with a question, which is, who do you think should be responsible for improving cyber-security? Does the responsibility lie with me, the user? Does it lie with companies? Does it lie with government?

FROM THE FLOOR:

I work with the OECD, but this is my personal opinion. I think that the leadership in fighting cyber-crime should lie with governments. But governments are not the only actors. They need to work in partnership with the others.

JONATHAN CHARLES:

What is it you think governments can do, bearing in mind that they may not be acting on an intergovernmental level? Or are you suggesting they need to act on an intergovernmental level?

FROM THE FLOOR:

Well, governments are the best place to identify and devise an action plan. And they need to facilitate coordination at a national level, with the private sector. And responsibility lies with each actor as concerns cyber-criminality. This morning, people said that users need to also realize that they are part of the Internet and take minimal measures to protect their systems and networks. And governments also need to cooperate with other governments. So it's kind of vertical or intranational and horizontal across countries.

FROM THE FLOOR:

Did somebody forget the word multistakeholder? I would hardly accuse the OECD of forgetting it, because you have the OECD toolkit dating back to 2005, which was one of the earliest models of multistakeholder cooperation and joint action against spam specifically. But most of the principles would apply for cyber-crime and cyber-security in general. And the point is that there are several very fine, very workable models available that make a lot of sense on multiple levels. The ITU has some very fine projects, such as a botnet toolkit, and there are several other examples, such as a series of best practices put out by the Messaging Anti-Abuse Working Group (MAAWG), which is an industry group.

But best practices are not very useful as long as they are on paper or as long as the only people who are following best practices are the people who are already doing the right thing. We have got a whole lot of people in developing countries and in developed countries that need to be reached out to and that need to be anything from educated to perhaps, in some cases, pressurized into following best practices. These multistakeholder models need to be taken out of paper and translated into

actual work. I'm glad to see that this is happening, but it's happening very slowly. It needs to take place much faster.

FROM THE FLOOR:

I'm from Nominet, the dot UK Internet domain name registry. An observation is that many of the speakers seem to think that somebody else should hold the responsibility for sorting out security. I think this is a shared responsibility in which each actor has a part to play. I think there is a role for best practice sharing. People are doing what they can on the ground to combat issues as they come up, and sometimes solutions will be formulated by industry. Our "Best-Practice Challenge," which we did this year, highlighted the example of Barclays Bank PinSentry, which has been very effective in combating phishing and has also been adopted in South Africa and in Turkey. This is an example of how developing best practices can actually help. It doesn't solve everything, but if people can do their bit to take responsibility for what they can see and what they can affect, I think that this is a good model.

FROM THE FLOOR:

I'm with the Information Technology Association of America. Perhaps the question isn't who is responsible, but what are the roles that the various players have in securing greater cyber-security for the users, whether they be individuals or companies or governments. So what are the roles of each of those constituencies in protecting their part of cyberspace? Government normally has a coordinating role or a law enforcement role or an intelligence-gathering role. Industry has a role in developing what the tools and solutions and services are for their clients or customers. One thing that we have talked a little bit about is the responsibilities of the users. Providing educational opportunities for people to understand how to behave on the Internet is very difficult, because it is such a widespread user base, but it is an important aspect as well.

FROM THE FLOOR:

I come from the China Internet Association. Concerning the issue of security, I fully agree with the idea that multiple stakeholders – that is the government, civil society organizations, companies and users – should jointly share responsibility in resolving a problem. The government, in resolving cyber-security issues, should stipulate the rules. Enterprises should deal with the technical issues concerning the infrastructure establishment. And concerning civil society organizations, their focus should be on coordination and communication. Of course, for users, they should have some ability to defend themselves.

In China, concerning anti-spam issues, inspired by the forum starting from 2006, we initiated a multistakeholder initiative. We asked the enterprises to strengthen their management of the issue and relevant rules and regulations were promulgated. In March 2006, the government issued a law concerning this issue, which specified what is computer spam, which in a way tells the society that this is something that

violates the rights of citizens. In this process we also organized enterprises and produced a blacklist of people who are involved in these kind of activities, and furthermore, in order to help the enterprises to deal with the issue, we have established technical and other ways to identify these problems. Also, we issued a lot of cards to tell people how to identify the spams and how to deal with them. On the part of the enterprises, they have improved the training concerning operators, up to about 1,000 people. And starting from 2006 to 2008, in the course of two years China's spam constitutes about 20% of the world's total, and by the year 2007 it accounts for about 5% of the total volume. We can see it is a rather dramatic reduction.

I want to share that a multistakeholder, joint action is very important. Of course there are other issues to resolve concerning cyber-security, like botnets. This is a focal point of where we should work. And this is will show that in the future the forum might establish a kind of mechanism to coordinate our efforts in this area in the future, to establish rules concerning the blacklist, concerning the share of the responsibility and concerning our joint action in this area. I believe this is the next direction we should go so as to give substantive progress in our work in this field.

JONATHAN CHARLES:

Thank you very much, indeed. We will discuss what the IGF might do a little later on. Before we take even more of your comments from the floor, I think Everton wants to have another word.

EVERTON LUCERO:

Thank you, Jonathan. The more we hear, the more it gets clearer to us that no solution fits all, that this is a huge, complex issue, and that it has to be taken on with all the stakeholders, and also with shared responsibilities. But perhaps to guide the debate we could think of a division of issues on short term and long term. On the short term, we have seen the challenges to law enforcement at national jurisdictions because today, as we all know, it is only governments that are able to enforce the laws in their own jurisdiction, as we don't have a global one. And so that's a first set of issues that we need to address, how to overcome these challenges to law enforcement. But we also need to think on the long run. And we have heard from the beginning suggestions related to education. And I think we could explore also a little bit, in the long run, shouldn't we work better on how to to have quality education?

JONATHAN CHARLES:

Natasha, is there anything that strikes you from the past few minutes?

NATASHA PRIMO:

I would just add that maybe one of the ways to take the debate a little bit further is to explore how, currently, the different industry players are pursuing a secure

Internet agenda while also holding in balance other rights, rights to privacy, free flow of information.

JONATHAN CHARLES:

Let's bear in mind the last comments of Natasha, because we are all very keen, aren't we, to protect our rights and our privacy on the Internet. And one thing we ought to be considering is where does the balance lie between our personal rights and the need for cyber-security?

FROM THE FLOOR:

I am from the Association for Progressive Communications. I would like to respond to the definition of cyber-security, and offer a different definition and also address the issue of balance and harmonization. I want to give you some examples which show that in some cases law enforcement may not be the best option. For example, in situations where access to information is difficult, where there is political repression or where women are not able to access information in their countries, is that part of what we are discussing here in relation to cyber-crime? In this instance, the person can be liable because of national laws. But does that not contravene freedom of expression? For example, people of different sexual orientation, who use the Internet to talk to each other. This is the only place that it's safe for them, where they find expression, where they are able to exercise their rights, and they are looking to international laws. So in some cases, in fact, it's national governments and national laws that are repressive and are not helping.

JONATHAN CHARLES:

There is the balance, isn't there? It is possible in tackling cyber-crime that we are going to restrict our freedom of expression. So where does the balance lie there? And how do you protect freedom of expression at the same time as you are tackling cyber-security?

FROM THE FLOOR:

I am the chief privacy advisor for Microsoft in Europe. I just wanted to address your question of the balance between cyber-security and privacy. It might seem obvious that this should be conceptualized as a question of balance and trading off one area against another, but this isn't necessarily so. There are opportunities now with new cryptographic technologies to actually distinguish between the concept of identifying somebody and authenticating somebody to access a particular Internet resource. The opportunity this creates is, in certain areas, to actually improve both privacy and cyber-security. It isn't necessarily a zero sum game.

For example, in many situations that we have discussed over the past few days, we considered the question of child protection. But also, the preservation of freedom of expression for adults. So the test is, can you find a way of checking somebody's age? Distributing somebody's date of birth identifies you in many circumstances. So using some of these new technologies which I have referred to, you can create a

proveable assertion that somebody is over 21 or that they are under certain years of age, without allowing the specific individual to be identified. Now, these techniques are not perfect. But using that idea of proving one's membership of a group that is entitled to access some resource, but without necessarily specifically identifying the individual, I think we can make great improvements in both privacy and cyber-security at the same time.

FROM THE FLOOR:

I am a private consultant and have been involved in Internet governance issues now for some time. I want to expand the debate by saying that, in my view, it isn't just balancing privacy and cyber-security, but also balancing openness. I think the issue of openness of the Internet includes all those concepts that involve the ability of the individual to access information and resources they're interested in. When they do that, they are in fact often putting themselves at risk. Will we be driven by fear that the perils of the Internet are so great that we are willing to sacrifice major benefits of this commitment to openness?

FROM THE FLOOR:

In a forum like this one, what would be important, internationally speaking, would be for us to recognize the fact that there are tensions amongst us. There are very different points of view from one country to another with regard to phishing or profiling. And then there's the issue of spam, which is something that weighs down the Internet, but it continues to exist. The Europeans have directives in place, but we also know how hard it is to obtain an agreement on safe harbor principles with the United States. Their point of view is very different from the European point of view on this.

If you talk about freedom of expression or other issues, all these issues are ones where we have different points of view. The European countries have an awareness about censorship, for example, which is quite different from how it's seen in the United States, for instance. So we need to look at some of the fundamental issues here. And we have to look at where can we negotiate with regard to this difference of cultures. I think our forum is very interesting for negotiating in these areas where there are different points of view.

Then there are other tensions, the tension between the business sector and civil society, for example, with regard to profiling or spamming. They're both coming at it from a different point of view. So I think, again, those are all areas where we could benefit greatly in this forum. So we need to start out by looking at what's working and what's not working and what are our different perspectives.

JONATHAN CHARLES:

We heard from the gentleman from Microsoft, who said that there wasn't necessarily a tension between improving security and privacy. We heard another view on privacy here, which is perhaps a more European view on privacy compared to the American view. I wonder how many of you in this audience agree with the

gentleman from Microsoft that you can improve security whilst not sacrificing privacy. Or do you see this as a tradeoff?

FROM THE FLOOR:

I think it's very interesting that we're getting to this dichotomy and the tension. I'm not sure that it's easy to find a way that completely reconciles privacy and safety. But I do think we need to recognize that the tension is not going to go away. Having listened to some of the views that have been stated here, what I want to argue is that the tension is the justification for the third way, if you like, or the IGF way of doing things. It will be irresponsible to leave it simply to users. Nor can we leave it to governments. Both have a role. But to pin the responsibility on either would be irresponsible.

Now, there is a temptation to legislate. If you say there's a problem, and people say there ought to be a law against it or the government is responsible, sure they'll bring in a law, but laws rarely prevent what they forbid. And that is even more dangerous to try and seek it at an international level for two reasons. One is that we have to compromise all the views that exist right across different nations and different cultures and different levels of development. And it will take so much time that whatever the danger was, it will be long past by the time we reach any legislation.

And many of the issues that we're debating here and that are debated in relation to the Internet are not really Internet issues. So, for example, if somebody uses a footpath to reach my house and burgle it and steal things from it, that is not a footpath crime. The crime is the theft, the burglary. And similar with the Internet crimes, many things are not issues in terms of whether they're crimes or not. The issue is, can we make the Internet, the roadway, the pathway, if you like, a safer place to be by, for instance, improving lighting, which is known to increase safety in the physical world?

So we need to look at those issues. We do need to have a necessary tension between rights and responsibilities. The tensions between freedom and law are not new. They're not unique to the Internet. They always exist in our debates in international contexts. So I would simply argue that the IGF has to look for the third way, the way in which at a national level we balance the tension between freedom and responsibility, tackling crime, preventing crime and all the rest of it, and that we have to use the IGF as a vehicle for inventing new forms of governance.

Tackling crime is inevitably linked to the issues of governance. Who decides? How do we decide? And it needs to be faster, a more cooperative way of doing things that we invent. That's the challenge to us, not to decide which point on a spectrum we are going to settle on. Because we will be continually moving along that spectrum in relation to different issues.

JONATHAN CHARLES:

Do I detect a little bit in your argument that we might have to give a bit on privacy?

FROM THE FLOOR:

Yes, I don't think we can ever be absolutely safe from the dangers that are involved in the Internet, nor do I think that we can make privacy a total absolute. Neither of those things are tenable. What we have to do is to argue through the issues of privacy and safety and develop ideas of best practice, what is acceptable, and try to move forward together. I know that sounds less efficient than having a decision or a convention or a piece of international law – I would suggest to you in the long term that it will be more engaged and actually more effective.

FROM THE FLOOR:

I'm from LACNIC. The tension is not between security and rights. The tension is between rights and responsibility. The bad news is not that we have to improve the safety, preserving the rights to privacy and freedom of expression. The bad news is that we have to improve all of them. We have to improve security and safety, but at the same time, we have to improve also the capacity of the people to exercise the right to privacy and freedom of expression, because millions of people in this world are living in conditions in which they cannot exercise the rights.

EVERTON LUCERO:

This debate about the tension about between privacy, security and openness may take us days, or even years, to resolve. I think that a more pragmatic approach would be to choose one specific subject against which nobody would pose any restriction that there is the need for action – for instance, combating child pornography. So on that particular issue, should we prioritize privacy? Security? Openness?

NATASHA PRIMO:

Just a small point. If we do take a particular example and we focus on child pornography, one of the points that came out of the second session focused on the question of what is harmful content. What is harm? Who defines it?

JONATHAN CHARLES:

Definitions are very difficult here. How do we define the issues that come into this whole debate on cyber-security? What constitutes something that we need to be protected from?

BERTRAND DE LA CHAPELLE:

I'd like to make a couple of points on this subject, not on my personal behalf, but speaking on behalf of the presidency of the European Union, because as you know this is a matter that is of great concern and great interest for the European Union. Fundamentally, we strongly believe that security, privacy and openness can and should, in many cases, be pursued at the same time. Of course, there will be cases where there are tradeoffs. The second thing is that if there is a domain where the interaction of all stakeholders is necessary, this is it. And there is a huge part of the

work that is done by the private sector and the technical community. And we want to stress this as well. But at the same time, it is very important to remember that all governments in the WSIS accepted a certain number of elements. And, in particular, I would like to recall the famous paragraph 42 of the Tunis Agenda that says measures undertaken to ensure Internet stability and security, to fight cyber-crime and to counter spam must protect and respect the provisions for privacy and freedom of expression that are contained in the relevant parts of the Universal Declaration of Human Rights and the Geneva Declaration of Principles. In this respect, we believe that the rights and protections that are established by internationally agreed treaties and conventions are and should be fully applicable to the Internet.

JONATHAN CHARLES:

The interesting thing is, we are sitting here and thinking in some way we're in a vacuum. The Internet does not occupy a vacuum. It has a place in the real world, and real-world laws in different countries apply to it. And I think sometimes we forget that. We seem to think that cyberspace is something separate, and cyber-security and cyber-crime are something different. Clearly, they're not.

FROM THE FLOOR:

I am a senator from Brazil, and the chair of a parliamentary investigative committee. We investigate child pornography in Brazil. We're talking about something that's global. The big Internet operators throughout the world, like Google, come to our countries and provide a service. Now, that's not terrible. If they come to create jobs, that's a good thing. But the problem is, they come to our countries and they say, "We are not going to abide by the laws in this country. Our company is based in America so we are going to abide by the laws of the United States," for example.

It's necessary for the large Internet operators to realize that it's necessary to abide by the laws in which they are working. Three years ago, Brazil was discussing the crime of child pornography in the public ministry with the federal police, with state level police, with other law enforcement, and people who go to congresses and conferences throughout the world. And Google was in Brazil and it had a certain behavior, because it didn't have to abide by our laws, even though we had them on the books. As chairman of the parliamentary committee investigating these crimes, I called upon Google to do something about this. I used my judicial powers, I convened them, and I asked the federal police to go to the highest management of Google, that they should come to our country and face the justice system. Now, on that day, we broke 3,274,000 child pornography sites, and another 20,000 with more than 10,000 child pornographers have been found who are circulating throughout the world on the Internet. On the day that we seized these, the director of Google in Brazil decided to do something about this.

The large Internet operators need to do the same thing throughout the world. It's not possible to treat developing countries with arrogance. And that's why I'm calling upon developing countries to set up a coalition. We need to sit across the table from

the big Internet operators and talk about the role of Internet operators in each of our countries. And we need to set up legislation in our countries to deal with this. President Lula from Brazil just passed a law which criminalizes the possession of pornographic material from the Internet. He also criminalized the conduct of the person who looks at pictures of children in pornography. Anybody who facilitates this, who delivers it – a whole series of conducts related to child pornography have been criminalized. This is to protect society, and each country should have laws on the books about this.

The Internet is great – but it is not beyond good and evil. Neither the service providers, nor the Internet operators are above and beyond good and evil. They need to obey the laws of the countries where they go to make financial profits and do business. If we look at what Google Brazil is doing in order to promote the protection of our children, it's a good model.

JONATHAN CHARLES:

We have a question from our remote hub, from someone who is watching us on the Internet in Argentina. She says some people think that the solution for cyber-crime and to increase cyber-security is more regulation of the Internet. Others think that trying to regulate the Internet is like regulating the law of gravity. What do people here think about these two positions and what do they think the IGF will contribute to make cyber-security better and to fight cyber-crime?

I would like to turn to another of our co-Chairmen, Pavan Duggal, who is an advocate of the Supreme Court of India, but also he is from cyberlaw.net. And I think you have probably got quite a few words to say on this.

PAVAN DUGGAL:

These are big issues to talk about, but when it comes to hardcore realities there is a lack of political will, much more in developing countries than developed countries. The lack of political will is also because of the uninformed nature of the debate. Invariably, people are looking forward to the top leadership in the West on how to tackle these issues. It's historical reality that Internet got introduced, originated and developed in the US and the West, but it's also a reality that the focus is now back on this part of the world where the developing countries like China, India and others are going to basically hold forth, primarily because of their size, primarily because of the Internet penetration. In those scenarios, cultural values suddenly start playing a different ballgame altogether. And it's here I personally believe that the concept of cyber-security is perhaps missing. We can also see that in developing countries, even a concept of data as an asset is missing.

It's important to create capacity by the relevant governments within not only their own organizations but also within the netizen community, and also to transcend the digital divide to make people far more informed about what is cyber-security, how can people contribute. We have to appreciate that there is a huge digital divide, even in countries like India. How do you address them and how do you carry with

you the huge chunk of people who are below the digital divide? For them, issues like this have no relevance or bearing on their day-to-day economic survival. At the same time, it's also important that the countries in this part of the world provide thought leadership. One way of giving thought leadership is to say, this is a new legislation or this is a new approach that we are doing, let's go about and propagate further.

Internationally, the Council of Europe has got its own treaty, the Convention on Cyber-crime. A large number of developing countries are in sync with the fact that the principles enshrined therein are extremely relevant in the context of this part of the world, but still do not have the political will to join them for a variety of reasons. Similarly, when you talk of privacy, the concept is nonexistent in some jurisdictions, and the cultural and the sociological factors are such that you can't expect a very uniform approach. Let me give an example. India has got a law on information technology. It's known as Information Technology Act 2000, but still it's not very proficient or eloquent on the issue of privacy. Is the concept of privacy existing? Yes. But today when we are seeing more terror attacks, when terrorism is suddenly getting center stage attention, I believe the people here are willing to forgo portions of their privacy, in a similar kind of manner as what happened in the United States. After the 9/11, people were willing to forgo their privacy for the larger good, being national security. Here also today, the systems are likely targets of attack.

Another big issue is how do you ensure that the people have adequate respect for privacy. Now, in a country like India, it's still judge-made law that defines what is privacy. The Supreme Court of India has defined that the right to privacy is a part of your fundamental right of life, which is guaranteed by the Indian Constitution under Article 21. But yet there is no law of privacy in our country. So if you don't have a law of privacy, how are you thinking of expecting to implement specific provisions pertaining to protection and preservation of privacy of people in the context of Internet cyberspace, as also use of computers, computer systems and networks?

Another historical aspect that we need to consider is the fact that in these parts of the world, governments like to listen. Electronic interception is the norm of the day. Laws and legislations across different economies have detailed various legal mechanisms of how to effectively intercept. But are laws being followed? That's another major issue.

More importantly, where is the balance being made in this part of the world between the issue of privacy and the issue of security? I think there are huge challenges. I want countries in this part of the world, the developing countries who are going to hold center stage attention on the Internet, to be far more focused in clarifying their vision and their strategy on how they want to deal with these issues. Unfortunately, if you look at developing countries around the world, it's normally one legislation relating to Internet or computer systems or network. That one legislation is a jack-of-all-trades legislation. I think it's time that the countries need to realize that these are serious, significant issues which require detailed, serious deliberations, specific provisions. And more importantly, I believe provisions which can actually be effectively implemented. This has to be supplemented by constant capacity

building. Unfortunately, capacity building is one area that is lagging behind, to a large extent. We need to ensure that capacity building has to be given the right focus. And finally, I think at the end of the day, there is a need for updating.

In the Indian culture you know we have a concept when you go back to the Ganges, which is a national river of India, it's a very pious river. You go back to the Ganges after a lifetime only to renew your energies, to dedicate yourself and your energies fresh. I think it's time that the countries of this world need to renew their vision on how to deal with these. Just because aspects of privacy are not present in your jurisdiction does not mean that the upcoming netizen population of your country aren't expecting privacy. They are expecting privacy. They are also expecting that you as nations are not only going to take care of their physical security but also the security of their data and information in electronic form, as also the secure use of the computers, computer system and networks. And if governments across the world fail in this scenario, clearly I think somewhere down the line a normal netizen has a feeling of deception. He gets a feeling of rejection and saying, "This is not what I was expecting from the governments." So that needs to be addressed.

Finally, I think somewhere down the line, you can't really address cyber-security, you can't address privacy, without addressing the much bigger issue of cyber-crimes. Now, today in the Internet 2.0 world, people are vomiting on the Internet. When I say vomiting, people do not have the maturity of what they are talking on the Internet. So right from my girlfriend to my personal details to my past life to my hobbies. Tomorrow, whatever you are saying is going to be indexed, is going to be archived for times immemorial and your children, your grandchildren are going to reference that. So it's not a famous actress who is getting shot topless who is concerned her children are going to see it or not. It's now a question of you as normal netizens who are going to be impacted. And what happens if somebody hijacks my identity online? I am going to have a harrowing experience. Now I have so much of a presence in different parts, somebody goes across and says I am so-and-so. Now, before I could know it, I am finished. Why? Because the damage that's caused is irreparable.

But are there legal structures well equipped to deal with cyber-crime? Not at all. Why? Because cyber-crime is considered as a hallowed sector somewhere on the horizon. Well, cyber-crime can never touch you. That kind of a vision needs to go out. The ostrich attitude needs to give way to far more pragmatic thought processes. Cyber-crime today is a part of the developing countries. India, and this morning in one of the sessions I was informed, is at number nine of the total number of the top ten countries from where spamming is being originated, number one still being the United States. Well, vernacular content has really ensured that vernacular spam is now coming. Now, in India we have come up with the concept of voice SMSs. Rather than sending your SMS to your mobile phone, I can leave a voice mail for you. People leaving all kinds of voice messages for you on the Internet for other people to download, listen to you? I am actually seeing a scenario which is going to be a horror kind of a scenario for individuals, for management of

Internet reputations. But more importantly, for trying to protect your national computers, computer systems and networks.

There's a concept known as the protected systems concept, which is that certain governments have reserved upon themselves the rights to dedicate certain critical infrastructure as protected systems. And if you are trying to merely have access to that protected system, that access has been defined as a penal offense punishable with a high quantum of imprisonment, say, ten years' imprisonment in India, and fine. This is one mechanism which countries can effectively utilize to go ahead and dedicate not just your critical infrastructure, but also normal, regular computer systems which have a bearing upon not just the stability of your national Internet exchange, but also upon the deliverance of electronic governance functions in a manner that it reaches the common man.

So I think it has to be a variety of approaches. Merely lip service is not going to do. Today, the netizen is an extremely disappointed and yet a very angry lot. The recent Mumbai attacks have shown the people of India are coming on the streets and saying, "We want accountability, and enough is enough." And mind you, enough of that propaganda or shall I say the anger is actually being vomited through the Internet. It's time that the national governments try to find out how can they effectively deal with it, how can they effectively secure the computers, computer systems, the networks, how can they actually come up and constantly upgrade their criminal regimes and the legislations in such a manner so that the latest and the new kinds of evolving cyber-crimes are effectively covered, and yet, at the same time, still have respect for individual rights, have respect for privacy. Just because, well, the country's under terror attack does not mean that you have a certificate blanket license to go ahead and intrude upon any computer record of any computer system.

So I think it has to be a cumulative kind of approach. It has to be balanced. But far, far more important is the commitment, the reiteration of political will to ensure that an adequate balance is appropriately arrived at not only between cyber-security and privacy, but also at any other aspect which tends to impact negatively or injuriously the effects of interests of people who are using computers, computer systems, computer networks, as also data in the electronic forum.

JONATHAN CHARLES:

We've had another question from the access hub in Argentina. Is holding a pornographic photo for personal consumption a crime? Or only those cases where the photos are used for commercial purposes?

FROM THE FLOOR:

I am child protection activist from Russia. As child protection, I see how effective the Framework Convention on Tobacco Control is, and it is effective partly because it's a convention of the United Nations. Cyber-crime, and especially child pornography, is a huge problem. However, because it's been unresolved, it's taken a

disproportional amount of time, I would say. We have the Convention of the Council of Europe, which has its benefits and its limitations. Benefits, because this is a group of countries with great expertise. And limitations because not all countries are ready to take these approaches. So what I would suggest is to consider the idea of developing some kind of thinking how could we either integrate child pornography into the existing treaties on the United Nations level or to develop a new treaty.

FROM THE FLOOR:

I'm from Bangalore, India. It seems like child pornography is taking a disproportionate amount of our energy and effort. But just to add one more thing, especially in relation to John Carr's presentation in the morning, that there has to be a way to talk about children and protection of children while also taking into account that their sexuality also has to be talked about and they have to be given a safe space, within which that can be explored. Children are not necessarily nonsexual beings. We seem to have a lot of rhetoric about childhood premised on the idea that childhood is about innocence and that there should be paternalistic protection. I think we need to look at that a little bit more carefully before going on and on about it.

FROM THE FLOOR:

I work for the Swiss regulator for media and telecommunications. And I work quite a lot as a state representative at the Council of Europe. At the moment, I am chairing the expert group on human rights and information society. The Council of Europe does a lot of work in protecting the rights and freedoms of citizens. And in the group that I'm chairing, apart from using the traditional mechanisms, like recommending member states to do this and that, we have started to contact the industry directly. We have tried to identify what are the key actors in the Internet that have a role with regard to the human rights of the users. And we have realized that many industry actors are squeezed into a situation where they themselves have an interest in having a clearer view on what their roles and responsibilities are.

We have engaged in cooperation, for instance, with the European Internet service providers, and we have elaborated jointly with them guidelines that help the ISPs to be more aware of the effects of their work with regard to the human rights, including privacy and freedom of expression, of their customers and how they can empower their own staff and help the small ISPs that maybe do not have the resources to follow meetings like an IGF and so on.

We have engaged in working out guidelines for the European gaming industry, that we try to raise awareness with those who design the games, that they should be aware of the effect that their games can have and how they could follow human rights standards if they want, because it's voluntary guidelines. The willingness of the gaming industry is quite high, because they fear, of course, if they do not give themselves some standards, that certain kinds of games might be prohibited.

So there is an interest from both sides in self-regulatory mechanisms that work. And whether they work or not remains to see. There's more work that we plan to do in this field. We are also thinking about those mainly private-sector actors who are not media, but who shape the access to content, and of search engines. If you take the example of search engines and privacy, there are search engines that have codes of conduct that they store your data only for two days. Others do not have such kind of things. And if the willingness is there on behalf of the search engines, we would be ready to work with them to help them set up kind of a set of voluntary principles which they can adhere to in order to help the user find out where his privacy is better protected.

FROM THE FLOOR:

I am at Nominet, which is the dot UK domain name registry. And I'd like to pick up on the point of industry taking responsibility for trying to improve the security for general people using the Internet. We're not an ISP, but we have membership that includes Internet service providers and registrars. And I'd like to just choose through examples of how we are engaging with that community and with others to try and achieve that objective. The first is in a dialogue that we've just started with the banking community, where what we are hoping to do is to start sharing information about the sorts of phishing attacks that the individual banks are starting to see and then trying to identify whether there is a way in which our members can react more quickly for taking a phishing attack down, bearing in mind that most of the damage in a phishing attack happens within the first few hours, and, therefore, if it takes you 24 hours to take the site down, then it's rather too late. So this is the industry reaching out well beyond its normal community to try and achieve something that is rather more effective.

The second I'd like to mention is the Internet Watch Foundation, where we and, in fact, the Internet service providers in the UK are all members of this industry-led organization which seeks to address child abuse and hosting of child abuse on UK sites and to try and block access to sites that are actually illegal for access within the UK. Now, the Internet Watch Foundation is currently working on its way of addressing what is currently called extreme pornography, again, something that is against the law, and, again, an area where we are going to have to try and examine ways of responding and trying to protect people from this nature of material.

And the third is that Nominet itself has set up a charitable foundation. And one of the roles of the charitable foundation is education. And this is picking up the point that was made earlier that we would hope that the foundation will be able to fund initiatives that help improve people's awareness and experience of being able to identify and respond to the attacks that affect them.

JONATHAN CHARLES:

In our next few minutes can we also consider the issue of what we're all doing here, the IGF, and whether there's a role? We've heard quite a few people here say maybe there is a role for some sort of cooperation between all the different aspects,

the users, the companies, governments. Is that where the IGF comes in? And if so, how?

FROM THE FLOOR:

I'm from Sufi Technologies. Coming to the question that you were talking about, what is it that we can do here at the IGF, one problem that we are all aware of but doesn't usually get addressed because there is no global convention to deal with it, is spam. The fact of it is, 80% of the traffic over the Internet is spam. And we're all paying for it. All the bandwidth providers, all the service providers, 80% of its capacity is choked by this, paying for its transmission. If, using a platform like the IGF, you could have a global convention that would shut down the servers from which spam emanates or whatever, I mean, we need to discuss it. I'm not providing solutions here. It would be of tremendous service to the networks around the world and to people in general.

FROM THE FLOOR:

So the question, I think, is, what are we doing here in the IGF that has value and is going to make a difference about cyber-security, openness, et cetera. I don't think that, actually, this is the place to negotiate global agreements, but I think it is definitely the place to build better global understanding. And I'm just going to say, as somebody who works in intergovernmental organizations by participating in them, who goes to a lot of different places, this is the most unique forum that I see, and one of the unique aspects of it is it's maturing. And people are beginning to talk about topics that, two years ago and one year ago, they weren't really willing to talk about. They didn't have enough trust in each other or in the forum to bring forward topics where there was great disagreement. So even the fact that we are dealing with these topics that are very divisive and involve different understandings and different roles I think has a great value. I think we already learned a lot today from each other, and so I would say this idea of really deepening the understanding across the different players, but also across the different geographies, it's bringing a lot of value, and may better inform decisions we make in other settings and back at the national level as well.

BERTRAND DE LA CHAPELLE:

Just one very quick point to note, and it's on a personal basis. The expression that was used, that child pornography is taking too much of our time at the IGF, I think actually we should take this as a signal of maturity. This issue has reached a certain level of awareness, diversity of perspectives, in the last two IGFs that we are now moving to another layer, which is what are the tools, what is the approach, and what are the places where this must be discussed. I don't think it is the subject, anymore, of large debates, and maybe in the next IGF some of the workshops that have been working separately should really get together, build – even in between, on what has been discussed in the two previous IGFs and maybe come to the next one to discuss various proposals, involve other actors and the various formats that could be thought of. There may be conventions that I am not aware of that could be

complemented. There probably are different frameworks that exist that should be articulated. I personally don't know the details, and I think the next step is now that this issue is clearly accepted by everybody as a very important test case, is to see how it can be explored further. Not treated and solved at the IGF, but moved one step further.

FROM THE FLOOR:

I am from APC. In relation to what other things can be done, I think the maturity should also include inviting others who are not here. For example, that will enrich the discussion around, let us say, protection of women in terms of violent, harmful content. In that discussion there are people, organizations, conventions that we need to also look at to expand the discussion of rights.

FROM THE FLOOR:

I am from India. We are talking so much about the child pornography and cyber-crime, thinking that there is a lot of awareness in the society, but the hard reality is that, you know, I have done the research on 1,500 people including children, parents, and the teachers, and very, very little awareness about the cyber-crime among the teachers. And the most important thing I would like to make a point here is that we can't keep the developed countries and developing countries on the same platform. Maybe we can have a global understanding but then we need to work out the specific strategies to the developing countries. And I think we need to empower the different sectors in the Internet, like children, parents, and look at the digital divide in the country.

FROM THE FLOOR:

I want to say that we should discuss in the Internet Governance Forum is the different approaches to the definition of cyber-crime and the ways how to harmonize these different approaches. And so only about 30 countries have ratified the Convention of Cyber-crime, and there are a great variety of definitions of child pornography among the countries which haven't ratified this convention. For instance, in Russia, there is no judicial definition of child pornography, and so there is a great problem for us. I think I would like to support these initiatives to develop the treaty only be a protocol on cyber-crime and especially on child pornography which can unify and can criminalize the different approaches to cyber-crime and especially the child pornography.

JONATHAN CHARLES:

Thank you very much. Everton and Natasha, you have been listening to this. Give us your thoughts now.

NATASHA PRIMO:

Well, I will give what I saw as the issues that had a lot of traction, and some of the consensus, I suppose, that has emerged through the debate. Three or four points, really.

One is that there seems to be an emerging consensus that this is the issue of dealing with cyber-crime, cyber-security, privacy and openness is a joint responsibility; that we should rather look at roles and responsibilities of the different stakeholders, and look at it as people working synergistically. There is a definite need, through the discussion that's emerged, for more information about where to go. So who to turn to in the case of people becoming victims of cyber-crimes and trying to find a remedy or process in the off-line or real-world environment. And this was said while noting that there was some talk around the role of enforcement, and the point was made that in some cases, going to law enforcement officers may not be the best route because they may be, in some cases, also part of the problem rather than the solution. And here the reference was specifically to repressive states. There was also recognition that there is, in fact, a lot happening, but that we need a discussion about how these different stakeholders would interact with each other to resolve incidents.

The second point is that we shouldn't necessarily talk about a tension between security and privacy, but that these can be mutually reinforcing. And that we need to also, as part of this discussion, bring in the implications for openness. Further to that, that the tension should be reconceptualized as that between rights and responsibilities, and this also brings into focus the importance of education, and specifically media literacy for users.

Around the role of the IGF, I think people feel very positive that it is a space for developing consensus, for developing deeper understanding of the different viewpoints, the different perspectives, and that this has value in and of itself. And there was some skepticism about whether we could reach a decision here, but this is the consensus and the deep understanding may lead to better decisions, more informed decisions in other spaces.

And just finally, then, on the child pornography issue. There's been a number of points made by different people about this perhaps not being the appropriate space to take up this discussion any further, and that we need to move to look at mechanisms, measures, processes and difference in other spaces, more appropriate spaces where the issue can be addressed more effectively. But it's also raised the issue for the need for a more nuanced debate, that people have thrown up the question about what is a child, what is harm, what is harmful content. And further to that, that there are people or stakeholders in this discussion who are not part of the debate here who, as we move it forward into whatever spaces we take it, that we also need to bring those communities, those interested parties into the discussion to enrich the debate but also to look at how, you know, if we talk about child pornography and some of the measures that are being proposed, what are the implications for other users.

EVERTON LUCERO:

I will not attempt to summarize such a rich debate that we had. I think that I will only note some of the points that were raised. And to start with, I think that they were complex in nature; they were, indeed, important. And perhaps the continuation of the debate will take the path of looking for a balance between security, privacy and openness, which is not an easy task given the multi-dimensional nature of the issues that no solution fits for all. The problems that were raised today, the questions that were posed here, they represent challenges not only to law enforcement agencies, but also to parliamentarians, to civil society, to intergovernmental organizations, to the private sector, to the technical community. So whatever the way forward may be, it has to go through multistakeholder cooperation, dialogue and partnership in the spirit of shared responsibilities. That is drawing the line between privacy, security and openness is, indeed, a collective work.

We have to start somewhere. I think it is about time for us to move from discourse to action, and it would facilitate that if we start in an area where there is a clear common understanding of what needs to be done. For instance, one of the issues that has been debated at length today was the question of child protection against sexual abuse and pornography. And it seems that discussion has matured enough in this area so that now we perhaps could think of creating a common environment where all relevant stakeholders could build trust and work together. And the IGF in these discussions certainly facilitate that and can continue facilitating it.

We need to remember the need of enabling developing countries to fully participate and share their needs, challenges and concerns, and we also need to remember that we are not starting from scratch. We are not reinventing the wheel. There are relevant references, there are international norms like the Universal Declaration of Human Rights, among others. And there are national and regional experiences that are, indeed, useful and are already there, as we have heard from many who participate in this debate.

And to finalize, my last point is about the need for a long-term solution, which is not only based on law enforcement but also on the quality of education devoted to raise consciousness and awareness towards personal empowerment, fulfillment and, above all, happiness, so that we may become integral human beings that we are all meant to be. So that's what I would like to say to finalize.

Reports of Workshops, Best Practice Forums and Dynamic Coalitions

Cyber-security and Cyber-crime

WS 28: An Interpol for the Internet?

Coordinator: Jayalakshmi Chittoor (Programme Coordinator, CSDMS)

Moderator: Vignesh Sornamohan (Sr Research Associate, CSDMS)

Panelists: Pavan Duggal (Advocate, Supreme Court of India); Deepak Maheshwari (Director, Corporate Affairs, Microsoft Corporation India)

The moderator set the stage for the deliberations by citing an example of a cyber-crime in cross-border nature and requested the panelists to share their views on the following questions: Where do we differentiate between cyber-law and real law? What are the IT policies in various developing countries? Is it possible to have one common set of guidelines and policies for all nations? If online crimes mirror offline crimes then which country's jurisdiction prosecutes? Is there a need for an international body like the Interpol for the Internet? If "An Interpol for the Internet" is a solution then how do we address the challenges of sovereignty, openness and freedom of expression?

Presentation by Deepak Maheshwari

It is very difficult to actually implement the cyber-law in a cross-border situation. In most cases there will be some elements of cross-border nature whenever there is a cyber-crime. However, there are models which are existing and people can look at either for adoption, ratification or partial implementation depending on their own respective needs, presence of the basic cyber-laws in the country, presence of the people and also the maturity of the organization and its people to deal with those issues and in that context. Interpol already has a very active engagement on cyber-crime. Of course, Interpol, as an inter-governmental organization, can do only so much because unless there is a local legislation and frameworks within individual nation states which have a mechanism to use the Interpol network.

One of the best examples would be the Convention on Cyber-crime of the Council of Europe, which has been ratified by more than 40 countries. The most important aspect of the convention is that it has developed a guideline between the law enforcement agencies and service providers against cyber-crime and these have been approved formally by the Government of Europe by the 2nd of April 2008. So now it's been about 8 months this is something what they say as objectives, what are the obligations and the rights of the law enforcement agencies, what are the rights and obligations of the service providers and how to actually go ahead, and this is a very prescriptive but a very comprehensive set of guidelines.

In cyber-crime investigation you require specific details from the service providers. First, who is the designated authority to provide information in the public domain? Second, what kind of information you needed. Are you looking for the IP address given to a person? Are you looking for a particular content? Are you actually looking for the date or time or the point or place of such access? So what are the specific types of communication or details that you are actually looking and if there is a detailing of that nature it welcomes much more easier for the service providers to actually go ahead, look into the details and respond in a timely and efficient and effective manner back to the law enforcement agencies.

In a cross-border cyber-crime, the countries would take action only if there is reciprocity. So if there is a country X from where there is a request to a country Y, and country Y would be in a position to help in that type of investigation only when they also have a reasonable expectation from country X.

Finally in practical terms, maturity level in terms of the legislative framework and capacity building of the law enforcement agencies or prosecution of the crime or the socio-cultural context of that particular country needs to be considered. This of course will differ significantly and unless people are sensitized in these kinds of matters, having a new type of mechanism, per se, would not be very helpful.

Presentation by Pavan Duggal

Cyberspace and the World Wide Web have created distinctly new challenges. The concept of a public place created on computer platforms where the users not only participate but actively contribute their inputs or more, has given rise to various complicated legal issues. Cyber-law is distinctly different from the real-world law inasmuch as the challenges of cyberspace are distinctly far more complicated than the actual world. Different countries have had their own bumpy ride experience relating to cyber-laws. Some early adopters in the US and the West had come up with their own legislations in this regard. However, by and large, developing countries are still in the process of enacting the cyber-laws. Some countries have already opted for their cyber-laws including India, Pakistan, Dubai, Singapore, Malaysia, Japan, Korea, Philippines.

A distinctive feature of cyber-law legislations existing in developing countries is that these legislations are normally the jack-of-all trade legislations. They tend to touch small, diverse issues in one legislation. Consequently the concept of having dedicated specific legislations on specific topics in cyber-law is distinctly missing in the developing countries.

The Internet, by its very inherent mechanism and architecture, a person sitting in the world can go ahead and target computers and data in other jurisdictions with impunity. The absence of effective national legislations beyond the conventional boundaries complicates the entire issue of jurisdiction.

The Convention on the Cyber-crime of the Council of Europe provides a platform for exchange of ideas, strategies and information pertaining to cyber-crimes. But, as Internet is becoming more and more ubiquitous, it is becoming amply clear that

there is a need for codifying common, universally acceptable principles and guidelines pertaining to all nations. Given the peculiar customized requirements of each nation, it may not be possible for all countries to have the same law, with the same language. However the common set of established international principles relating to cyber-legal jurisprudence need to be embodied in an international treaty which needs to be duly approved by nations. Nations need to incorporate the relevant portions and principles of the said jurisprudence in their national jurisdictions, depending upon their own national exigencies.

Limited amounts of cyber-law convictions of the world and cyber-crime matters leave no doubt that the world as a whole needs to act as a whole, against cyber-crime. There is a need for an international body to monitor international efforts on cyber-crime with international recognition and support of nations. It's very clear that there is a need for a special Interpol for the Internet.

The workshop debate

- Does the cyber-law cover mobile phones?

The answer is clearly yes. And it's not just for India, it's for the world. Because, in any definition of any legislation of cyber-law across the world, the way a computer has been defined, it has been divided into broad terms to include any device which has got mechanism, memory functions, which has data processing capability, so your mobile typically is a computer within the law. And Indian law is no exception; it is a computer under section 21 of the IT Act of 2000.

- We have been saying that law enforcements have problems but do you actually get cooperation from other countries?

Certain countries have been cooperating, the problem is some countries don't have cyber-laws in place and some countries which have cyber-laws, their provisions are totally different as compared to India. So there are certain problems and then the local legislation of a particular country also overrides, like take the example of United States is very stringent as compared to certain other countries including India. So countries have increasingly realized that it is important for them to cooperate and come on a common platform, have similar kind of technologies, harmonize, et cetera, but it is a process which will take time and I think it'll still take another five to 10 years.

- The type of cyber-crime that we are talking of today is where the crime is actually being committed in the cyberspace. Should cyber-crime also include the crimes where the crime is being committed physically but the planning for the crime is happening on the cyberspace?

Earlier, countries thought that cyber-crime has only got to do with what has happened at cyberspace, but now the definition is getting broader. It's any activity that is targeted at the Internet or that's done using the Internet. So today when say a terror attack takes place at Mumbai, now the terrorists are today smart cookies. They are now not sending e-mails because they know that no government are

looking into their e-mails. So, they have now come with a more genius methodology. What is the methodological system? They open up any account with a generic service provider, maybe a Yahoo or something, and then this account and its password is disseminated to all members of the group across the world and a message is made to draft it and is saved in the drafts folder. The message is read by the concerned person who has to read it in another jurisdiction, he reads it and thereafter he proceeds forward to implement it. So, no effective communication was transmitted on the Internet, but at the same time, the Internet was very effectively and ingeniously used in a manner to go ahead and perpetuate these kinds of cyber-crimes. These kinds of methodologies are now finding more favour with the legislators and the governments of the world, and the bigger challenge is how do you further go ahead and demarcate and distinguish a legitimate activity versus activity that could be a part of a criminal activity that is unknown.

Key recommendations

- The Internet service providers need to designate a authority, who will bring the critical information into the public domain.
- There must a common consensus on what kind of information needs to be shared in the public domain.
- The Cyber-crime Convention of the Council of Europe could be considered as one of the options to replicate or ratify or adopt it, customized to the nation's needs and readiness.
- It's very clear that there is a need for a special Interpol for the Internet.

WS 33: Global Culture of Cyber-security

Organizers: Consultative Committee on UN Information Technology (CCIT), China; Association for Science and Technology (CAST); Internet Society of China (ISC)

Panelists: Prof. Xinmin Gao (Standing Vice Chairman of Internet Society of China, Member of the Advisory Committee for State Informatization); Prof. Qing Sihan (Institute of Software, Chinese Academy of Sciences; Engineering Research Center for Information Security Technology, the Chinese Academy of Sciences); Dr. William Drake (Director of the Project on the Information Revolution and Global Governance, the Graduate Institute of International Studies, Geneva, Switzerland); Prof. Tao Xiaofeng (School of Telecommunication Engineering, Beijing University of Post and Telecommunication); Prof. Liu Chuang (Director of Global Change Information and Research Center, Institute of Geography and Natural Resources, Chinese Academy of Sciences); Mr. Huang Chengqing (Secretary General of Internet Society of China); Prof. Wolfgang Kleinwächter (International Communication Policy and Regulation, University of Aarhus)

The topics of the workshop are crucial to the IGF and can be divided into three parts:

- Application of Internet – application of Internet and mobile communications in emergency occasions, such as the Wenchuan earthquake in Southwest China in

May, 2008, are extremely and particularly important and helpful.

- Availability – make the Internet available and accessible to all people in China, including the disabled, the poor, teenagers, et cetera, is one of our most desirable goals.
- Security and Trust – the cyber-security is facing both opportunities and challenges. Building and enhancing trust among Internet users is the assurance of reaching the next billion users; therefore, the Norm version 3.0 is needed.

Participants were impressed by the achievements of the Internet application in China and felt it was necessary to follow up the formation of World Internet Norm (WIN).

Many participants of the workshop pointed out that the World Internet Norm could well serve as a necessary guideline and guarantee for the openness, diversity, trust, accessibility and affordability of the Internet to most of the users in the globe, although it takes time to establish mutual understanding and to be accepted widely.

Some participants of the Workshop said that an Internet with openness, trust and security, diversity and accessibility can only be realized by self-disciplined multistakeholders. Therefore, a good Norm is absolutely needed.

Possible Follow-up

We have solicited suggestions and comments from the multistakeholders on the drafted World Internet Norm after the previous IGF meetings, and have made improvements. We hope the discussion on the World Internet Norm will become one of the main topics at the IGF meetings in the near future.

OF 92: ITU Open Forum on Cyber-security

Organizer: International Telecommunication Union (ITU)

Chair: Malcolm Johnson, Director, Telecommunication Standardization Bureau, ITU

The legal, technical and institutional challenges posed by the issue of cyber-security are global and far-reaching, and can only be addressed through a coherent strategy taking into account the role of different stakeholders and existing initiatives, within a framework of international cooperation.

The World Summit on the Information Society (WSIS) called upon the ITU to build confidence and security in the use of ICTs. ITU is developing its role through several diverse initiatives in order to promote a culture of cyber-security, raise awareness of the issues involved, develop tools promoting end-user confidence and provide technical assistance to Member States.

Listed below are the sessions and the topics discussed.

Session 1: Global Challenges – Global Action

The technical and legal issues associated with cyber-security are major challenges countries face. This session provided a review of some ITU-led international initiatives that address global challenges in building confidence and security in the use of ICTs. ITU-R has addressed security aspects in several Recommendations to ensure rational, equitable, efficient and economical use of the radio-frequency spectrum by all radiocommunication services.

The broad nature of the Global Cyber-security Agenda has also resulted in interest from other stakeholders and opportunities for collaboration and cooperation. Such initiatives include support from IMPACT to provide its infrastructure to deliver services such as a Global Response Centre, training and skills development, security assurance, research and international cooperation and the launching of the multistakeholder Child Online Protection initiative for joint action to promote the online protection of children worldwide.

Session 2: Cyber-security Work Programme to Assist Developing Countries

This session provided a review of initiatives aimed at helping developing countries improve their capacity in the cyber-security area, including providing expertise and managerial support for activities related to cyber-legislation (e.g. anti-spam legislative surveys, assessment of national cyber-crime legislations) and research on the financial and economic aspects of network security, malware and spam. ITU-D initiatives on working with partners from the public and private sectors on specific cyber-security/Critical Information Infrastructure Protection (CIIP) to assist developing countries in (a) creating awareness and self-assessment programs, and (b) in setting up watch, warning and incident response capabilities was reviewed during this session.

Session 3: Role of Standardization in Cyber-security

This session addressed the development and use of standards in cyber-security, such as Recommendations in the domains of vendor-neutral frameworks for automatic notification of security information and updates, guidelines for service providers for addressing malware, framework technical strategies and technologies for countering spam. ITU-T SG 17 is ITU's lead Study Group for work on security in the use of ICTs and has approved many Recommendations on security, namely X.1205 ("Overview of cyber-security"), among many other significant recommendations. Q.17/17 (TSB Circular 91) continues work on Recommendations on technical means for countering spam.

The forum was well attended, and the presentations well received. ITU's efforts in cyber-security were widely appreciated by the audience. Discussions revolved around getting more stakeholders' participation in order to further strengthen the global effort towards building confidence and security in the use of ICTs. Several attendees expressed their support and willingness to actively cooperate and contribute to current/future ITU efforts in this area.

Fostering Security, Privacy and Openness

WS 29: On Building Confidence and Security in the Use of ICTs for African Countries

Moderator: Belhassen Zouari (CEO, National Agency for Computer Security, Tunisia)

Panelists: Mr Marco Obiso (ITU); Djekou Abraham (ATCI, Côte d'Ivoire)

The aim of the proposed workshop was to share experience and to deal with ICT security basics and best practices. This event would lead to establishing a collaboration network involving several stakeholders over the continent, to reach confidence on ICT use.

Most participants to this workshop were from African countries. They were from governmental institutions, associative organizations and academic institutions. Among them, the Minister of ICT in Namibia was present. The other participants were mainly from Soudan, Gabon, Zambia, South Africa, Burkina Faso, Ghana, Uganda, Côte d'Ivoire, France, Kenya, USA, Cameroon, Mali, United Kingdom and India.

The moderator made a presentation on how to establish an ICT security plan at a country level, citing the Tunisian experience and some best practices.

The difficulties faced by African countries in the area of computer security were dealt with during this workshop and possible solutions were suggested to achieve the confidence in the use of modern technologies of communication and information. This workshop also gave the opportunity to share experiences and expertise in the field of computer security.

The discussions mainly turned around to the following points:

- The situation of ICT (Internet access, e-services, et cetera) and security aspects in African countries and the gap to overcome to reach an acceptable level of ICT penetration
- How to set up a legal framework related to ICT security aspects and the difficulties African countries are facing
- How to set up operational procedures and CERT (Computer Emergency Response Teams) to face security threats
- How to learn from the Tunisian experience in establishing a legal framework and operational CERT

WS 83: The Future of Online Privacy: Online Advertising and Behavioral Targeting

Organizers: Electronic Privacy Information Center (EPIC); Center for Media and Communications Studies (CMCS), Central European University (CEU); in collaboration with DiploFoundation

Panelists: Joseph H. Alhadeff (Vice President for Global Public Policy and Chief Privacy Officer, Oracle Corporation, Chair of BIAC's Information, Computer and Communication Committee, Vice Chair of ICC's Commission on e-Business, IT and Telecom); Anne Carblanc (Principal Administrator in the Information Computer and Communications Policy Division, OECD); Eddan Katz (International Affairs Director, Electronic Frontier Foundation); Kristina Irion (Assistant Professor, Department of Public Policy, Central European University); Gus Hosein (Senior Fellow, Privacy International)

Moderator: Katitza Rodríguez (Director, EPIC International Privacy Project)

Ms. Rodríguez provided a short introduction to online advertising and behavioral targeting and the possible privacy threats.

Ms. Irion started by defining what is a behavioral targeting advertisement. She quoted the definition used by a US Federal Trade Commission (FTC) staff working paper that "... online 'behavioral advertising' means the tracking of a consumer's activities online including the searches the consumer has conducted, the Web pages visited and the content viewed in order to deliver advertising targeted to the individual consumer's interests." She explained how the business model for Web 2.0 works and how businesses enrich personal data from other sources, for example by combining with data from other services or publicly available information; by data mining (a technology that discovers non-trivial hidden patterns in a large collection of data, which can provide insights into individual lifestyles and their social and behavioral patterns); and by trading personal data (for example, transfer of user information to third parties).

She explained the differences in applicable regulation and effectiveness between the European Union and the United States as illustrated by the Google-DoubleClick merger. In April 2007, Google announced an agreement to acquire DoubleClick for \$3.1 billion, expressing intent to merge data from Google and DoubleClick to profile and target Internet users. In response, several US privacy organizations filed a complaint with the US FTC setting forth the grounds for the Commission to establish substantial privacy safeguards as a condition of the merger. These complaints argued that the increasing collection of personal information of Internet users by Internet advertisers posed far-reaching privacy concerns, and warned that the merger of the Internet's largest search company with the Internet's largest advertising company posed a unique and substantial threat to the privacy interests of Internet users around the world. The US Federal Trade Commission (FTC) concluded that the merger did not create market power in search engines and online advertisement and, although it raised privacy concerns, that they were unrelated to antitrust concerns and dismissed the argument. For its part, the European Commission concluded that the proposed concentration would not

significantly impede effective competition and stressed the application of data protection laws.

She concluded that behavioral targeting is still in its infancy, there are different policy approaches in the US and EU, and no effective policy tools for tackling concentration of data collections.

Ms. Carblanc spoke about the OECD Privacy Framework, which includes the OECD Privacy Guidelines (1980); the Ottawa Ministerial Declaration on Privacy (1998); the Report on Privacy Online (2003); and the recommendation on Privacy Law Enforcement Cooperation (2007). She stressed that new technologies bring dramatic changes to the ways in which personal data is processed and that new trends in globalization are fueled by technological advances. She also asked how well our traditional approach to privacy works in an environment in which the Internet makes it possible to customize ads to match the interests of users.

From an economic point of view, she mentioned that the OECD has worked on a preliminary analysis of some of the most striking effects of online advertising and emerging challenges and policy debates. The OECD work includes the Report on Participative Web and User-Created Content, which also includes sections on advertising-based models and policy implications; the OECD policy framework for online advertisement in general; OECD e-commerce Guidelines (1999); OECD Guidance on Mobile Commerce; the OECD Privacy Guidelines; OECD Ministerial Declaration on the Protection of Privacy on Global Networks (Ottawa, 1998).

Mr. Joseph Alhadeff started his presentation by referring that most of the Internet services based their business models on online advertisement. According to the speaker, the topic is still in its infancy and is being discussed only in some countries and is probably a discussion that will have cultural dimensions. He noted that the key issue is that companies should work towards granting confidence to users. He finally suggested that this discussion should be based on a multistakeholder and multi-jurisdictional approach.

Mr. Gus Hosein started his presentation by presenting the Google case, saying that the Internet advertisement model used by this company has been successful because it was able to list and find products according to the best price. However he noted that Internet advertising practices need to be transparent about how they process consumers' personal information. He stressed the need of privacy legislations that regulate this business practice. He also expressed strong concern when he heard from some government representatives that governments should not worry about privacy legislation when there are a large number of community members who are part of "user-generated content sites" such as Facebook. He made a proactive proposal to move forward the discussion directly to governments so they could be aware of the need for regulation and policies to protect the privacy of Internet users. Finally, he suggested that countries should establish specific policies to prohibit and punish online advertisement directed to minors.

Child Safety

WS 31: Child Safety Online

Organizers : ECPAT International; eNACSO; News Corporation; European Commission-Safer Internet programme

Chair : Anjan Bose (ICT officer, ECPAT International)

Panelists: Zoe Hilton (eNACSO); Larry Majid (Connect Safely); John Carr (News Corporation); Margareta Traung (European Commission); Thiago Tavares (SaferNet Brazil)

Child safety on the Internet is an issue that addresses several of the general themes of the IGF, namely security, openness, capacity building and multistakeholder cooperation. The goal of the workshop was to build upon the foundation established at the IGF in Rio de Janeiro where governments and civil society organized several workshops related to child safety and to move towards establishing a follow-up mechanism for ensuring such recommendations are implemented through actions. This workshop was also proposed to highlight successful initiatives that could reinforce the idea of multistakeholder cooperation and foster similar initiatives globally. Keeping in mind the multistakeholder nature of the forum, a diverse set of experts from leading agencies were invited to present their work and analysis of the situation in relation to protection of children from sexual exploitation online. Representatives from international NGOs, private sector and civil society shared their experience and interacted with an audience of interested IGF stakeholders holding substantive discussion on critical issues involving protection of children online.

The Chair of the workshop presented the highlights of the outcome document in the context of child pornography from the recently held World Congress III in Rio de Janeiro on commercial sexual exploitation of children and adolescents and the call to the states to adopt a clear definition of child pornography in accordance with international standards, criminalize the production, distribution, receipt and possession of child pornography, including virtual images and the sexually exploitative representation of children, as well as the consumption, access and viewing of such materials where there has been no physical contact, extending legal liability to entities such as corporations and companies in case of responsibility for or involvement in the production and/or dissemination of such materials and also prioritizing victim identification and support and care by specialized staff. Educational and awareness-raising actions focusing on children, parents, teachers, youth organizations and others working with and for children with a view to improving understanding of the risks of sexually exploitative use of the Internet, mobile telephones and other technologies including information for children on how to protect themselves, get help and report incidences of child pornography and online exploitation was highlighted.

It was obvious from the various presentations that strong focus on educational and awareness-raising mechanisms on child online safety needs to be carried out and

enhanced in places where they are already in place. eNACSO, the new network of child advocacy organizations working in Europe, presented some emerging issues about how offenders are using more innovative ways of reaching and abusing children and how children themselves are putting themselves in risky situations where parents and guardians are completely clueless about their activities in the online space. Influencing industry, government, law enforcement and other agencies to engage in a solution was strongly recommended. A successful model of advocacy in the UK was also presented and model legislations that criminalized “online grooming of children for sexual purposes” was highlighted. It was noted that the specialised response groups from the law enforcement and the international nature of their work and collaboration was proving to be a very successful model. What came up very clearly was that the social networks should promote responsible behavior among young people as they are creating a social space. The need for advocacy work to fight against child abuse images and mechanisms around blocking and removing such content was discussed. The video presentation from ConnectSafely highlighted the relative change brought with the interactive and social Web that we see now and how the young population engages in this space by also creating content and interacting through various ICT tools that are available. This puts them in various situations of risks and needs to be addressed as a multidisciplinary approach. Various factors that increase the risk of children falling victim in the online environment were raised and highlighted. The social networking service MySpace presented their approach towards online safety by building blocks of partnerships and linking with education, technology, legal, policy and civil society including NGOs. Current work to make the MySpace portals safe and enhance the safety features were discussed which involved preventing access to inappropriate content and prevent unwanted contact. It was also discussed how algorithms developed by competing companies for such safety features can be shared and enhanced for reaching a common goal.

The European Commission’s Safer Internet programs were established in 1999, which worked towards an inclusive approach in bringing together all concerned stakeholders from industry to researchers, teachers, parents and NGOs active in child welfare and encouraged them to cooperate, exchange ideas, best practice and experience in order to empower and protect young people when using online and mobile technologies, was presented. The Safer Internet Day, organized by INSAFE network, was highlighted and demonstrated how collaboration with the relevant stakeholders help disseminate information and awareness to the masses. Shared activities and events were found to be very effective in spreading the message on online safety. It was highlighted that the children should be protected during their active engagement with ICT usage such as mobile phones, but as they mature, they must be empowered to protect themselves from related risks. European Framework for Safer Mobile Use by Younger Teenagers and Children by leading mobile operators and content providers was presented, which describes principles and measures to protect children that those companies who signed the agreement commit to implement on the national level through out Europe.

SaferNet Brazil, the Brazilian hotline, presented the issues that are being faced in Brazil in relation to the social networks, particularly the emergence of child abuse materials in such public forums. The signing of the MoU with Google to exchange information between the hotline and Google to effectively remove such profiles was presented and similar initiatives in other parts of the world were encouraged.

Participants, particularly from the Indian audience, expressed that the presentations and discussions opened up new areas that were unknown or little known to them and deliberated on how to expand on the forum for ongoing discussion on the issues that arose in the workshop and for follow-up of the proposals that arose from the exchange. It was emphasized that the means to share discussion of relevant issues and sharing of information and experience in such work should be sustained to provide opportunities for expansion of child safety initiatives to a wider range of local contexts, particularly to take advantage of the global representation in the participants of the IGF. Also it was clearly identified that child safety is a challenge that needs to be addressed by all IGF stakeholders, each of whom has clear lines of social responsibility

WS 32: Dignity, Security and Privacy of Children on the Internet

Chair: David Wood (World Broadcasting Union)

Panelists: Joseph Aldhadeff (Oracle); Marco Pancini (European Policy Counsel, Google); Thomas Schneider (Swiss Government); Ceran Unal (Lawyer, Turkey); Sunyoung Yang (Yonsei University, Korea); Janice Richardson; Krishna Reddy (Associate Professor, Osmania University, Hyderabad)

The workshop considered how to deal with the management of personal expression on the Internet in order to encourage expression and openness on the Internet. There was discussion of national policies, technical tools, the roles and responsibilities of industry actors, as well as personal initiatives.

The workshop discussed the following questions:

- What is identity management at the design level?
- Can we factor into the design of technologies and services a lifelong approach to our online identities in a manner which respects and protects our security, privacy and dignity?
- How to manage one's dynamic identity governance?
- The role and policies of the state with regard to identity management – is there an optimum solution(s) for harmonized levels of identity which respects and protects our dignity, security and privacy; what is the likely “buy-in” across nations?

The discussion considered identity management, with a current situation overview, examined the scope of problem and tried to summarize of the issues. The participants agreed that there is not only risk of harm through content, but even more through contact and interaction with other Internet users. Such contact may

put users at risk of harm, either directly (as in meeting strangers in dangerous situations) or indirectly, from the consequences of their online behaviour. The consequences of exposure seem to be more harmful for those who are already vulnerable. Especially young people tend to give away inappropriate (private) information publicly (allowing access to “anyone”). However, it seems likely that many more also do so inadvertently, as a result of limitations in both Internet literacy and interface design. Anonymity – as important as it is for freedom of expression online and offline – can be problematic in the framework of social networking sites. The perpetuity of information distributed on the Internet is another challenge that has to be faced and better understood.

With regard to possible solutions to the problems, there was agreement in the room that education, awareness raising and Internet literacy are of key importance. All actors involved, the states, the business sector, but also the users, have to recognize and assume their responsibilities. There was consensus that – given the widespread desire of users to participate in such platforms – prohibitive laws, especially on national levels, are not likely to be effective remedies.

Governments were encouraged to help empower users and to create incentives for business to provide for more transparency about their privacy and user protection policies and to develop guidelines and principles in that regard. Some participants were suggesting that service providers should be obliged to ask explicit consent of the user before processing their data. There were also proposals to oblige service providers to set the default settings for their users on a higher privacy and protection level. Better self- and co-regulation and mediation mechanisms could provide effective remedies to the risks discussed.

Business representatives emphasized that they were attempting to provide their users with the best choices and opportunities, respecting their demands and interests. They also expressed their willingness in cooperating with governments and users in order to create a secure online environment, especially with regard to children and young people. It was also stated that the users’ right to self-determination should not be compromised unless absolutely necessary.

The discussion showed that there was a general consensus that users should also be included in an “accountability framework,” for example by consenting to principles on how to deal with their own data but also with the data of other users.

Several actors from different stakeholder groups expressed their intention to pursue this interesting and stimulating discussion in the future and to help exploring ways of developing harmonized guidelines and principles for minimal protection if possible on a global level.

WS 36: Strategies to Prevent and Fight Child Pornography in Developing Countries

Organizers: SaferNet Brazil; Brazilian Federal Public Prosecutors Service

Chair: Demi Getschko (NIC.br President)

Panelists: Rish Jaitly (Google Policy Council in India); Thiago Tavares Nunes de Oliveira (Cyber-law professor and President, SaferNet Brazil); Adriana Scordamaglia (Federal Prosecutor in São Paulo, National Cyber-crime Unit); Sergio Gardenghi Suiama (Federal Prosecutor in São Paulo, National Cyber-crime Unit Coordinator); Anjan Bose (ECPAT International); Carlos Eduardo Sobral (Brazilian Federal Police Cyber-crime Coordinator); Senator Virginio de Carvalho (Special Rapporteur of Brazilian National Congress Special Commission on Child Sexual Abuse on the Internet); Senator Magno Malta (President of Brazilian National Congress Special Commission on Child Sexual Abuse on the Internet)

The chair of the workshop presented the model of Internet governance in Brazil as a pioneering experience regarding the effective participation of society in the decisions that involve implementation, administration and use of the Internet. He mentioned that we usually have two different approaches regarding security on the Internet: infrastructure threats and human rights threats.

The first one can be addressed with international technical cooperation and technology development. The second one is a complex phenomenon, in which interact various dimensions regarding economic, individual, social and cultural rights, with developments and implications in the fields of ethics, education, health, law, public safety, science and technology.

Based on multilateral, transparent and democratic principles, the coordination and integration of the activities of Internet services in the country are made by means of the Brazilian Internet Steering Committee – CGI.br – a multistakeholder organization composed of members of the government, the enterprise sector, the third sector and the academic community.

Speaking on behalf of Google, Mr. Rish Jaitly highlighted the results of the MoU signed by Google with SaferNet and the Brazilian Federal Prosecutors Service to effectively remove illegal profiles on Orkut and exchange information to assist Brazilian law enforcement agencies to investigate the Brazilian offenders.

Speaking on behalf of SaferNet Brazil, Mr. Thiago Tavares Nunes de Oliveira focused his presentation on the growth of child sexual abuse on social networking sites and the evaluation of the effectiveness of various measures now available in Brazil to combat it, and highlighted the gap between developed and developing countries' strategies on public, social and private sectors on this regard. He concluded that Google's Orkut case in Brazil can help us to find the balance between preventing and reacting to human rights cyber-crimes and respect ordinary users' privacy and freedom of expression rights in democratic countries. He invited the participants to reflect on the key questions to be addressed in this regard:

- How to oblige big international ISPs to comply with national legislation and disclose the data needed for law enforcement investigations without putting freedom of expression and users' privacy rights at risk, especially in non-democratic countries?
- Which criteria should be used to enable the application of domestic criminal

legislation to the cross-border child sexual abuse phenomenon?

- Which criteria should be used to define the ability of a particular country to legislate over and sanction child abuse committed on the Internet?
- What legal obligations do local offices of transnational Internet corporations have towards consumers and national law enforcement agencies respecting offenses committed by national users in their remote operated services? What are the minimum necessary obligations for ISPs in this regard? Are they correctly defined by law?
- How aware have been the big international ISPs in this regard in developing countries? They have been proactive and supported NGO and law enforcement efforts like they have done in developed nations?
- What kinds of social and judicial measures are necessary to face child abuse and other cyber-crimes against human rights in developing countries, from a national, regional and worldwide perspective?
- How can we involve all stakeholders (industry, government, law enforcement agencies, academia, NGOs, media) to work together to deal with these problems, particularly in developing countries without strong ICT industry and corporate social responsibility culture?

Speaking on behalf of the Brazilian Federal Public Prosecutors Service, Mr. Sergio Suizama and Mrs. Adriana Scordamaglia presented the issues that are being faced in Brazil involving content-related offences in social networking services and discussed some of the key questions proposed. They highlighted that the SNS Internet service providers are mostly based on the United States and have branches located in strategic markets overseas and tailor the services with local content and in local languages to meet the needs of the community in order to facilitate the development of the business in global terms. They argue that international law principles (like territoriality or nationality) shall be used to define the sovereignty of a state regarding content-related offences committed on the Internet. They suggest it is possible to define some reasonable standards to test the validity of a nation's attempt to prescribe law over Internet. In the case of the collective lawsuit against Google in Brazil, the standards argued were:

- Orkut's profiles or communities that are being investigated have been managed by presumed Brazilian citizens, given the language used and the subjects discussed by them.
- Investigations are focused on users that have accessed the Internet mostly from access points physically located in Brazilian territory.
- Effects of harmful conduct on Orkut are felt strongly in Brazil, given the major part of its users are from this country.
- Brazil has taken on the obligation, under international law, to investigate, prosecute and adjudicate offences against human rights when these offences are

in its territory or when the alleged is a national of its state or a person who has his habitual residence in its territory.

- Google has clearly designed its SNS to reach the Brazilian consumer market, as a relevant market for the development of its businesses overseas.
- A “country of origin” approach would force thousands of damaged or harmed Brazilian consumers to rely on unfamiliar rules.
- Requiring a consumer to travel to a foreign court to litigate over a local damage would, in practical terms, deny that consumer any remedy; in addition, all contents that have being investigated by the Brazilian Federal Attorney's Office are also offensive under international human rights standards.

They concluded that it is legitimate to enforce the company's local office regarding a service that has been operated from the US if the claim for jurisdiction over a crime committed on the Internet is valid and acceptable under reasonable international standards. In case of Google's SNS it would be impracticable to send hundreds or even thousands of judicial requests to the US, using the regular (and still precarious) instruments of international cooperation, just to collect Internet traffic data.

Speaking on behalf of ECPAT International, Mr. Anjan Bose said it is important to identify the key issues related to child abuse images such as the means of distribution, audience, social fabric and not necessarily only paying attention to the online forms and the technology involved. Child abuse images are also distributed through conventional media such as CD/DVD, publications and are widely available in open markets where awareness is not enough and law enforcement does not prioritize the issues. Sellers of such media do not recognize the harm caused to children and are only interested in the money that it brings and in many such instances, as in Cambodia where it was sold in the open market, did so with impunity quoting, “They are not our children.” Cybercafes play a big role in bringing Internet connectivity to the masses in developing countries and need to be integrated in the policy making and child safety standards along with ISPs and telecom operators.

Social networking in developing countries is catching up with developed countries and some SN such as Orkut, Facebook, et cetera, enjoy huge membership in countries like Brazil, India, Philippines, et cetera, but without the necessary awareness and educational systems to orient young people about Internet safety. Mobile phone networks are also growing at a fast pace in these developing nations, with all the advanced features and standards being implemented, thereby also exposing the young population to the inherent risks without necessarily equipping them with the right knowledge to tackle the issue and also lacking the infrastructure to effectively address problems when they arise.

Developing countries should learn from the lessons learnt by the more developed nations where the current practices and infrastructure are built up through experience and should also allow communication channels to open up dialogue with

agencies working on this issue, both in developed and developing countries, to facilitate mutual knowledge building and ensuring adequate child protection mechanisms.

Speaking on behalf of the Brazilian Federal Police, Mr. Carlos Eduardo Sobral highlighted the co-operation between NGOs, private and public sectors to confront child sexual abuse on the Internet in Brazil. He presented the results of Operation Carousel II as an example of the success of this model. He called for the private and public sectors to work closer together and emphasized the Brazilian National Congress Special Investigation Commission on Child Sexual Abuse on the Internet as a common platform for cross-sector partnerships to link up law enforcement around the country and maximize resources.

Speaking on behalf of the Brazilian Senate, Senators Magno Malta and Virgínio de Carvalho presented the results of the Brazilian National Congress Special Investigation Commission on Child Sexual Abuse on the Internet and the role of parliaments and legislators on Internet governance in a developing country like Brazil. They argued that the current instruments of international cooperation are not sufficient to face child abuse on the Internet, particularly in developing nations. In Brazil, new kinds of social and judicial measures were necessary to face child abuse and other cyber-crimes against human rights and to force the industry to take action and cooperate with law enforcement agencies and the judicial system. They called for an international coalition of developing nations to deal with this issue in Latin America and in other parts of the world. The signing of the MoU with Google to exchange information between SaferNet and Brazilian law enforcement was highlighted as an important initiative that should be encouraged in other countries.

Participants on the floor expressed that the situation in Brazil is paradigmatic, because it represents the beginning of a new form of creating social control and governance balance between law enforcements, users' data requests, application of national legislation and jurisdiction and big international ISPs' worldwide policies and strategies.

WS 37: Child Protection in the Mobile, Always-Connected Age

Chair: Kathleen Spencer Chapman (NSPCC)

Panelists: John Carr (eNACSO); Adrian Dwyer (INHOPE); Gitte Bang Stald (IT University of Denmark); Margaret Moran (MP, British Parliament)

The workshop heard how the use of mobile devices was reaching saturation point in many youth markets around the world, with several countries recording ownership levels significantly in excess of 100%. Many children now use Internet-enabled mobile devices, with the level varying across the globe.

The use of mobile devices brings many opportunities for children such as empowerment, creativity and connectivity. It also became clear that mobile phone technology held great promise in many developing countries who could use it to

provide a phone service and Internet access without the time-consuming need to lay down thousands of miles of expensive cable.

However there are also risks for children linked to connectivity to the Internet including around the content available online, problematic contacts which may be made via Internet and also young people's own conduct. The fact that a device is mobile means that children have increased opportunity to access the Internet and it is inherently more difficult to supervise or support children and young people in their use of them and help guard against some of these risks.

Current statistics and the increased reporting of cell phone abuse indicate that text messaging and cell phone cameras have opened the mobile phone community to individuals who use the Internet to prey on children. A review of some US cases from INHOPE indicates that many of the incidents are perpetrated by teenagers improperly/illegally utilizing the technology.

In some countries, such as in the UK, the mobile phone networks were introducing adult filters and adult bars. These filters and bars can be lifted but generally only after a procedure has been completed which allows the mobile phone network to determine that the user is over 18. In February 2007 the Commission of the European Union signed a memorandum of understanding with most of Europe's major mobile phone networks to develop a policy similar to the UK's in each of national market.

There was a discussion of how mobile phones can also be used as tracking devices and for more general surveillance purposes, for example as remote listening or remote video devices. There is very little regulation in this area and with the introduction of GPS technology it was becoming even more difficult to ensure consistent standards. With any system which allows for children and young people, or objects closely associated with them, to be tracked, some key security issues need to be considered so as to ensure that persons not entitled to track or know the whereabouts of the child are unable so to do. Within the UK Parliament a Bill (draft legislation) had been published to try to establish a regulatory regime which would embrace all remote systems which offered location data, irrespective of the technology platform.

The workshop heard that many mobile phone networks that provided Internet access were blocking access to known child sex abuse Web sites by deploying at network level the lists of known illegal Web sites supplied to them by national hotlines.

The ways in which mobile phones can be used to facilitate bullying, either by text messages or through the use of humiliating photos or videos, was discussed at length, as were the many initiatives around the world aimed at raising awareness of the issues or aimed at providing support to victims. The incorporation of stills and video cameras into almost all new handsets had also given rise to an increase in the distribution of child sex abuse images, typically produced by children themselves, often portraying themselves or their schoolfriends in a sexual and therefore illegal setting. It was understood that where these images were

exchanged directly from phone to phone there was little or nothing the networks could do as very often, for example, if Bluetooth is used, the images will not touch the networks at all. This issue, along with several others, underlined the importance of engaging with the mobile phone handset manufacturers. So far they were proving reluctant to engage in conversations with those concerned about child safety.

BPF 75: The European Approach to Empowering and Protecting Children Online

Organizer: European Commission, Safer Internet Programme

Chair: Antti Peltomäki (Deputy Director-General, DG INFSO, European Commission)

Secretary: Margareta Traung (Principal Administrator, Safer Internet Programme, DG INFSO, European Commission)

Panelists: Janice Richardson (project coordinator, INSAFE); Adrian Dwyer (membership coordinator, INHOPE); Pille Pruulmann-Vengerfeldt and Bojana Lobe (University of Tartu and University of Ljubljana, EU KIDS ONLINE); Dieter Carstensen (Chair of the eNACSO group); Per-Åke Wecksell (Detective Inspector, National Criminal Police, Sweden, CIRCAMP); Jutta Croll (Managing Director of Stiftung Digitale Chancen/ Digital Opportunities Foundation YPRT)

Children, young people and their families tend to be in the vanguard of new media adoption benefiting from early take-up of new opportunities afforded by these technologies. This means, however, that they may encounter a range of risky or negative experiences for which they may be unprepared: child sexual abuse material is being distributed online, they may get in contact with potential abusers (grooming), access harmful content or being bullied by their peers.

Addressing these risks has been the focus of a succession of Safer Internet programs implemented by the European Commission since 1999. This is the only pan-European initiative relating to child protection online and has several actions that have proved effective. As part of its actions the program has initiated a number of European networks bringing together different stakeholders such as NGOs, industry, researchers and law enforcement agencies in order to facilitate dialogue and exchange of best practice on specific issues.

The Best Practice Forum was designed to share the experiences of this pan-European initiative and to address how these networks contribute to make the online environment a safer place for children and young people.

The coordinator of INSAFE, Janice Richardson, presented what this network is doing in order to educate and inform children, families and schools about the possibilities and risks concerning the use of new communication technologies. She informed the meeting that INSAFE is coordinated by European SchoolNet and consists of 26 nodes across Europe, which organize awareness and dissemination activities at national and European levels in order to reach to schools, libraries and media. The members of the network are encouraged to share experience and best

practice and many resources have been created such as a good practice marketplace, an online good practice observatory and a virtual library.

Janice Richardson mentioned further some examples of good practice on how to reach to a broad public, like a video clip produced in Germany which has been translated into 15 languages and been broadcast in several European countries, and the industry "TeachToday" initiative for developing tools for teachers. The Safer Internet Day was mentioned as another successful example of how to reach out to the public. Since its first edition in 2004 by the Safer Internet program, participation in this event has been steadily growing and 65 countries will take part at the next celebration on 10 February 2009. Many activities will take place at this day such as a collaboration platform for specialists in the form of a virtual universal exhibition, an EC celebration in Luxembourg and the launch of a video clip dealing with cyberbullying.

Adrian Dwyer explained that INHOPE is an umbrella organization of the national hotlines providing a possibility for the Internet users to report about illegal content. The organization was founded in 1999 under the European Commission's Safer Internet Action Plan to combat growing concerns related to the illegal content. INHOPE represents and coordinates the global network of Internet hotlines and supports them in their fight against illegal content. The global network currently consists of 33 hotlines in 29 countries all over the world. All together INHOPE hotlines have processed 900,000 reports. Out of those 6,000 reports per month have been assessed as potentially illegal and been passed to law enforcement for action.

Adrian Dwyer mentioned further that INHOPE is currently looking at the possibility of creating a shared URL database for the member hotlines. A common database has several benefits as it would reduce duplication of reports passed to law enforcement, provide a global view of the problem related to the images of child sexual abuse, and provide more relevant information for developing strategies to tackle the problem.

Bojana Lobe and Pille Pruuilmann-Vengerfeldt, two of the researchers participating in EU KIDS ONLINE, explained that the purpose of this network is to examine European research on cultural, contextual and risk issues in children's safe use of the Internet and new media. The network has research teams in 21 European countries and it has produced a number of reports, which are available at www.eukidsonline.net. Some of these reports define how to research children and online technologies in a comparative perspective like the Best Practice Research Guide and others are cross-national comparisons on children's online opportunities and risks across Europe.

The two speakers mentioned some of the findings of the cross-national comparisons which show that the more parents use the Internet, the more the children are too and that it's teenagers who are the digital pioneers. The comparisons also show that there are similarities in risk across countries and that disclosing personal information followed by exposure to pornography and to violent

or hateful content and being bullied/harassed are the greatest risks for teens. The network has also identified demographic similarities in risk and concludes that teens encounter more risks than others, children from lower SES encounter more risks than other children, social parental mediation is to prefer to technical approaches and finally that, below the age of 11, children's skills are perceived to be inferior to parents'.

The European NGO Alliance for Child Safety Online (eNACSO) was presented by Dieter Carstensen. He told the meeting that this network was recently established and currently consisted of 13 children's rights NGOs across Europe. The overriding goal is to create a safer online environment for children.

The purpose of the network is to share expertise and best practices on key policy areas related to child online safety and develop common approaches and strategies in relation to protecting children in relation to new and emerging technologies. On this basis, it will forge joint strategies for change and promote its recommendations to national, European and international decision-makers and other relevant stakeholders. The focus will be on the following areas: policy development and exchange of expertise, Internet governance and child protection, online child sexual abuse material and identification and protection of children who have been abused in the production of images, children's use of interactive technologies: protection and empowerment, online grooming, manipulation and sexual exploitation and child participation.

The next speaker, Per-Åke Wecksell, presented the COSPOL Internet Related Child Abuse Material Project (CIRCAMP). This is a thematic network for facilitating cooperation of law enforcement agencies in Europe and internationally. It is run by the National Criminal Investigation Service in Norway and has members in 13 European countries plus Europol and Interpol.

Per-Åke Wecksell stated that the overall goal of CIRCAMP is to limit the market of commercial distribution of child abuse material that is produced and distributed through online technologies. Through cooperation the network will create a common understanding towards global policing of the Internet. It will further reduce harm on society by attacking the distribution of child abusive material on a European level, and disrupt the methods used by organized crime groups responsible for the illegal pay-per-view sites.

The implementation of the blocking solution in Denmark was mentioned as a best practice example where the national hotline, run by Save the Children, industry and law enforcement, has cooperated since October 2005. The hotline acts a filter for the police and only relevant cases are forwarded to the police, which collects the reported URLs and after they have been evaluated creates the blocking list. Twenty-two ISPs take part in the initiative, not by law but by policy code. Their role is to implement the blocking list on DNS servers, to implement the STOP page and to provide statistics.

The last speaker, Jutta Croll, talked about the Youth Protection Roundtable. This is a network for facilitating and coordinating exchange of views between pedagogical

experts, child welfare specialists and technical experts on technical and pedagogical measures against unwanted and harmful online content. It has 32 members from 13 European countries and the purpose is to encourage a dialogue between technical specialists and children's welfare experts covering a broad variety of knowledge, skills and cultural backgrounds.

Jutta Croll stated that the goal for the Youth Protection Roundtable is to encourage a collaborative and cross-sector dialogue focusing on the optimal mix of effective technology-enhanced strategies on the one hand and education-based strategies on the other hand, to enable youth (and responsible adults in the case of minors) for a safe and secure use of the Internet. The Roundtable will produce two sets of Guidelines, which will be published on 3 April 2009: one for technical developments in respect of educational issues, and the other product-neutral guidelines for use of filter technologies and pedagogical measures in public and private areas.

In the discussion following the presentations, the European activities for empowering and protecting children online were referred to as "the reference" and delegates from developing countries, in particular, expressed their wish for a closer contact and cooperation with Europe.

BPF 89: Child Online Protection

Organizer: International Telecommunication Union

Chair: Malcolm Johnson, Director, ITU Telecom Standardization Bureau

The spread of Information and communication technologies has brought enormous benefit to society, boosting economic growth, improving education and providing greater efficiency in business and government processes. Young people have an especially important role to play in the Information Society, both as potential beneficiaries and as future drivers of ICT development. However, as the number of children and young people accessing the Internet increases, so, too, does the likelihood that they will be exposed to inappropriate Web sites or encounter harmful situations online.

Speakers from different stakeholder groups participated in the event, including private sector entities and well-known organizations involved in child safety.

The following sessions constituted the agenda for the event:

- The dangers facing children surfing the Internet today
- Ease of access: current, new and emerging ICTs
- Recommendations and key activities

In line with these agenda items, the forum discussed these important issues in a very open manner, identifying challenges and opportunities, highlighting the difficulties that some stakeholders have in the daily work regarding coordination and

communications with the other key players and the end users (the youth and children)

The World Summit on the Information Society (WSIS) called for strengthened action to protect children from online abuse and also called upon the ITU to build confidence and security in the use of ICTs. In accordance with this mandate the ITU created the Global Cyber-security Agenda, and within this framework is committed to connecting the world responsibly. Consequently ITU considered the protection of children online as a priority.

The Child Online Protection (COP) initiative, launched recently by the ITU, was presented as an example on how to harmonize the work and provide an international cooperation platform where all relevant stakeholders can express views, share projects and activities and agree on common ways forward. The key objectives of this initiative were mentioned:

- Identify the key risks and vulnerabilities to children online
- Create awareness of the risks and issues
- Develop practical tools to help governments, organizations, law enforcement and educators minimize those risks
- Share knowledge and experience while facilitating international partnerships to define and implement concrete initiatives

As follow-up, several stakeholders, such as Child Online International (CHI) and Save the Children joined the ITU initiative and will cooperate in the future with other key regional initiatives such as Safer Internet, to build a platform for global cooperation where different constituencies can share views and develop best practices, as well as collaborating with governments, industry, educators, law enforcement and child experts.

Dynamic Coalition on Child Online Safety

Organizers : ECPAT International , Coordinator Dynamic Coalition on Child Online Safety.

Chair : Anjan Bose (ICT officer, ECPAT International)

More than 30 children's rights agencies participated at the IGF in Rio de Janeiro and convened in a side meeting to systematize the fight against child sexual exploitation in the online environment by forming a dynamic coalition that would enable them to constantly engage with relevant stakeholders at the IGF platform which was identified to be one of the policy forums that brought together key stakeholders from the states, industry and civil society, among others, and is significant in carrying forward the combined work to combat such crimes against children. The platform was envisaged to bring together the child protection agencies to share and enhance their work and collective learning and also to have meaningful dialogue with the freedom of speech and expression lobby by engaging in fundamental conceptual discussions around the issue of freedom of expression

as it applies to child protection and working out clear solutions in that regard. The dynamic coalition initially constituted 15 founding members and was later joined by Cyber Peace Initiative of Egypt. The members continued to remain engaged in the forthcoming period and organized joint activities before meeting up again for the IGF in Hyderabad.

The workshop was divided into two distinct sections:

- presentations from IT Industry (Microsoft), Youth Protection Roundtable, Germany and Cyber Peace Initiative Egypt
- interactive dialogue amongst the members of the coalition and other members of the audience

The presentation from Microsoft touched on child safety standards that are being incorporated into the Microsoft products such as integrating reporting to hotlines from within Messenger programs in some countries, age verification systems and working with various partner agencies to develop child safety curriculums and educational programs. Close collaboration with respective child rights agencies and including children in development of such programs was emphasized.

The Youth Protection Roundtable in Germany conducted a survey to judge the situation of youth protection in their country by including child welfare organizations and IT companies as well. The results were presented during the workshop. It was interesting to note how different stakeholders viewed the responsibility of providing protection to the youth population in the online space, and the variations with different regions with the majority of the Southern European nations putting the responsibility on the states.

The Cyber Peace Initiative of Egypt presented the process of engaging the youth with ICT-led activities by youth-driven activities and a private-public social partnership. The youth empowerment program seeks to increase the capacity of the youth by providing soft IT skills and promoting IT in a positive way. This unique program has managed to produce more than 300 master trainers who in turn impart their skills and knowledge to a much greater target and eventually incorporate in school curriculums. Internet safety is a strong feature of the program and it aims to reach out the children through effective advocacy of the youth. A notable feature of the program is the direct collaboration with the IT industry and the private sector to produce the materials and obtain technical know-how.

The second part of the meeting revolved around the main objectives of the coalition. The Chair initiated the sessions by trying to identify the kind of issues that might cause tension. It was noted that one of the key aims of this DC when it was established was to create a forum for discussion with groups advocating in favor of freedom of expression and privacy but in spite of regular efforts from the members of the coalition, to bring such advocates to the forum proved difficult. It was also observed that there were misconceptions at the IGF around “child protection lobby” trying to press against the freedom of expression group and it was clearly mentioned by the Chair that such misconceptions need to be resolved. It was

emphasized the esoteric debate between child protection/freedom of expression should yield to more practical engagements where deeper solutions could be obtained and to that end both parties should engage equally.

A common ground held was the need to include educational and awareness initiatives as part of the mandate of the coalition, particularly in the context of the developing countries and also to clearly delineate the issues around abusive practices (including the entire issue of child abuse material) and the emerging behaviour of young people online that might put them into risky situations. The view was expressed that the most effective way to protect children is not to focus on filtering technologies but rather to install a “filter in the head” of each child – to educate children to be able to protect themselves online. This will also avoid conflict with the freedom of expression lobby as it won’t rely on filtering technologies. On the other hand, it was also argued that while education is important it is not enough on its own and technical solutions also need to be developed and used. This is especially important as while a “filter in the head” will work for some children, all children and families are different and this won’t work for all children.

A concern was expressed that especially in developing countries, technological development is very fast but policy and legislation are not keeping pace. There was commitment from a developed country representative to help the developing countries in this regard. Need for child-specific laws and legislation was stressed and was felt to be missing in many developing countries including India.

Debate around realistic images of non-existing children in abusive contexts was raised to which the Chair mentioned that such images should be treated as child abuse images as they contribute to increasing demand for child abuse images, which can fuel abuse of real children.

Future of the Dynamic Coalition

To give more focus and direction to the DC it was agreed to set up a Steering Group to support the coordinator, ECPAT International. A need to prioritize the main objectives of the coalition was raised and the name of the coalition was to be considered for a change in recognition of such prioritization. A suggestion was for the DC to set up its own Web site, which could link to members’ Web sites. Another suggestion was that “we should be where the children are,” on the social networking sites. Sharing of all members’ activity reports, and publishing a document with good articles on child protection themes, was agreed. It was also noted that the coalition should expand to include more stakeholders.

Other Issues Related to Promoting Cyber-security and Trust

WS 55: Resurrection of Online Dispute Resolution

Organizer: Dr. Hong Xue (Professor of Law of Beijing Normal University and Chair of Council of Chinese Domain Name Users Alliance, China)

Panelists: Prof. Hong Xue (Beijing Normal University, China); Mr. Daniel Rainey (Director of the Office of Alternative Dispute Resolution Services, The National Mediation Board, USA); Mr. Graham Ross (Founder and Managing Director of The Mediation Room, United Kingdom); Prof. Vivekanandan (National Academy of Legal Studies and Research, India); Mr. Jeff Aresty (InternetBar, USA); Mr. Pavan Duggal (Head of Pavan Duggal Associates, India)

ODR is not only important to e-commerce but essential for the people's access to justice in the information society. The workshop focused on e-justice, which is a overlooked area in the Internet governance discussion.

In the present financial crisis, ODR's function to facilitate economic development has become particularly important. If ODR can increase the financing for SMEs, employment opportunities and international trade, ODR can gradually enter into the mainstream of dispute resolution.

In addition to improving the judicial efficacy and saving costs and resources, ODR can give more people, particularly those disadvantaged, access to justice and dispute resolution services. This is critically important to disabled people and people living in the remote regions of the developing countries.

The term "online dispute resolution" (ODR) is the product of an observation that was made in the mid-1990s about the nature of "new" disputes being created through the use of ICT. The observation was direct and powerful – by using ICT, we are creating a cyber-environment (the Internet) and cyber-transactions that are different from the transactions we are used to in the "real" world, and we are creating conflict that is different in nature than the conflict we create in the physical world. The classic example is eBay. A buyer in India and a seller in Iowa may have a dispute over an online transaction and find it physically impossible to engage in mediation or other types of dispute resolution in the traditional, face-to-face sense. Additionally, there may be no clear legal authority to help them settle the dispute. For individuals in this position, some online dispute resolution system is the only game in town. This observation and the reaction to it were the birth ground for Ethan Katsh and Janet Rifkin's identification of ODR technology as the "Fourth Party."

Online Dispute Resolution has various practice models in US, Europe and Australia, to name a few spaces. In an Indian context the Information Technology Act 2000 opened the digital age regulation. The Act aimed at legitimizing digital signature and bringing the e-commerce revolution. The IT Act 2000 has touched upon various issues of contract formation, digital signature validation, cyber-crimes and jurisdiction issues. It has not explicitly dealt with ODR. Yet the provisions could be

optimized for ODR in various sectors. The sections on e-governance provide for proactive use of dispute resolution methods, yet the effective ODR needs other inputs like the training, infrastructure and most importantly the willingness of the disputants to be part of the process. This presentation analyzed such optimization for ODR for stakeholders.

It was proposed that a Global ODR Development Panel initially take the lead and become a driving force for building a trusted online community responsible for collectively drafting documents, circulating information and organizing promotional events about building an online justice system. Panelists should include the leading figures in ODR research and practices. An effective working organization should include up to 30 members, and have gender and geographical balance. The panel will particularly encourage the participation of the disabled people for their access and exercise of justice through ODR proceedings. The panelists will be by invitation plus public recruitment.

Follow-up

Given the tremendous interests and strong momentum of the panelists and participants of the workshop, an ODR Dynamic Coalition will be formed. An initial website has been set up at <http://cde.iiit.ac.in/odpr/>. A charter is being drafted and the application for the DC will soon be submitted to the IGF secretariat.

Part 3 – Managing Critical Internet Resources

Chairman's Summary of the Main Sessions

The third day focused on the theme of "Managing Critical Internet Resources." The theme was covered in two panel discussions, one on the "Transition from IPv4 to IPv6", and the second on "Global, Regional and National Arrangements". These were followed by an Open Dialogue on the general theme.

Transition from IPv4 to IPv6

The first session was chaired by Dr. Gulsham Rai, Director of the Indian Computer Emergency Response Team (CERT) and was moderated by Ms. Bernadette Lewis, Secretary General of the Caribbean Telecommunication Union (CTU).

Various speakers described the process by which policies that controlled the allocation and management of numbers within the Regional Internet Registries (RIRs) as being developed through an open, bottom-up process that engaged the entire Internet community. This was described as a self-regulating process. Projections were made that at the present rate of depletion, the IPv4 address space would be exhausted sometime around 2011.

The view was held that there was no need to impose a deadline to forestall the inevitable, because the market was dictating the IPv6 deployment. It was also stated that IPv6 was really a continuation of what existed today in IPv4, except that it would provide additional addresses. This might, however, have impact on some of the current technical processes.

One thing that was considered certain was that IPv4 and IPv6 would coexist well into the future. Every IP-based product was expected to be affected. IPv6 equipment was on the market, and vendors were supporting and migrating applications to IPv6. It was pointed out that even though IPv6 was available for deployment, the operators had been slow on the uptake of IPv6. This was attributed to the number of challenges they were facing, as, for example, there was no obvious commercial driver for network operators to move to IPv6 and that there was no revenue associated with the migration. The point was also made that there was no initial customer demand. Operators were believed to perceive that there was insufficient vendor support. However, it was said that operators were beginning to recognize that the time for migrating was now and that this was happening incrementally. One speaker explained that there would be a need for addressing hardware and software issues in their customer premise equipment and customer equipment and that there would be costs associated with the migration, costs relating to hardware and software training and actual labor costs for doing the conversion.

The panel also noted that there was a great need for private and public sectors and civil society to be involved in the process. It was a shared responsibility and one

that required promotion and enabling of a smooth transition from IPv4 dominance to an environment where IPv6 becomes dominant.

This was seen as a clear case for multistakeholder participation and the Japanese experience was offered as a useful model for going forward, where they used taskforces on a national basis to ensure the smooth transition and standardized mechanisms for the coexistence of IPv4 and IPv6.

Others spoke of a tremendous need for public awareness and education, also training. IPv6 needed to be highlighted on the national agendas of all countries. And the speakers mentioned that it would be considered useful if the regions could adopt harmonized approaches. It would be useful and helpful if as part of the education process, case studies were to be made available and published, for example, on the IGF Web site. Confidence-building measures could be highlighted to build the confidence of the citizens so that they would be comfortable with the migration. It was asked how the citizens and other stakeholders could be engaged. This would be very important. One speaker suggested that perhaps citizens should be encouraged, for example, to view an IP address as an integral part of their identity.

In this emergent environment, one panelist indicated that the role of RIRs would be changing. The scarcity of IPv4 was going to demand that the RIRs would look at and develop policies for issues like methodology for the transfer of IP address space, reclaiming and getting control of unused address space, security and management of the new IPv6 addresses and handling the emergence of possibly secondary markets.

Arrangements for Internet Governance: Global, Regional and National

The second panel discussion, “Arrangements for Internet Governance: Global, Regional and National,” was chaired by Mr. Ramlinga Raju, Founder and Chairman of Satyam Computer Services Limited, and moderated by Ms. Emily Taylor, Director of Legal and Policy, Nominet (UK).

The discussion began with a review by the moderator of the origins and the meaning of the terms “critical Internet resources” and “enhanced cooperation.” The moderator suggested that for many the term “critical Internet resources” was understood to mean the administration of the Domain Name System (DNS) and Internet Protocol (IP) addresses, which were discussed in the previous session. However, for others, the meaning was broadened by the Working Group on Internet Governance (WGIG) in 2005 to include also the administration of the root server system, technical standards, peering and interconnection, telecommunications infrastructure, including innovative and convergent technologies, as well as multilingualization. In her view, there was a broad and a narrow view on the meaning of critical Internet resources.

The representative of the United Nations Department of Economic and Social Affairs (UNDESA) reported on the progress made in relation to “enhanced cooperation”. She informed the meeting that the Under-Secretary-General for Economic and Social Affairs, Mr. Sha Zukang, had sent letters to relevant organizations to provide an annual performance report, in accordance with the Tunis Agenda. The organizations included the ITU, UNESCO, WIPO, OECD, Council of Europe, ICANN, ISOC, NRO and W3C. Information obtained showed a focus on four main areas:

- The meaning of “enhanced cooperation” to most of the concerned organizations was to facilitate and contribute to multistakeholder dialogue.
- The purpose of such cooperation ranged from information and experience sharing, consensus-building, fundraising, to technical knowledge transfer and capacity training.
- Thematic focuses of those arrangements covered by those organizations were very much in line with those being discussed at IGF.
- Cooperative arrangements had already taken place among those organizations, and more were being developed with other partners and with these nine organizations.

She noted that the phrase “enhanced cooperation” did not seem to provide practical guidance. UNDESA would include a summary of the feedback received in the Secretary-General's report on the follow-up to WSIS which would be submitted to the next meeting of the CSTD in May 2009.

The different speakers shared their understanding of the meaning of the term. One speaker spoke of “creative ambiguity” that had enabled different stakeholders to discuss a difficult set of issues in ways that were mutually acceptable.

Another panelist emphasized the phrase “governments, on an equal footing” from paragraph 69 of the Tunis Agenda and that this supported the view that “enhanced cooperation” meant a process involving governments. This brought a reaction that paragraph 71 of the Tunis Agenda referred to the participation of “stakeholders in their respective roles.” From their perspective, this supported the position that WSIS created no new areas of competence for existing organizations.

There was an emphasis on “public policy issues” by one speaker who differentiated between technical policy and public policy. Only “public policy issues” were part of “enhanced cooperation”. Other speakers emphasized that the process should involve all stakeholders.

There was uncertainty among the panelists about in what organizations “enhanced cooperation” should take place: some felt that the ITU was not relevant and ICANN was, others highlighted examples of the OECD and ITU as relevant organizations. One speaker suggested that “enhanced cooperation” should be understood as a “living concept.”

The representative of the Government of Brazil said IGOs such as the ITU and UNESCO were promoting “enhanced cooperation” within their mandates to facilitate the development of public policy principles at their own pace. In his view, the main reason for the inclusion of “enhanced cooperation” in the Tunis Agenda was ICANN, because even if ICANN was not for profit, it was market-driven and ICANN was under the oversight of one single government. He noted that governments, in particular from developing countries, were underrepresented in ICANN. The current ICANN Government Advisory Committee arrangements were, in his view, not conducive to “enhanced cooperation” and needed to be reviewed. He suggested the ICANN transition action plan debate was an opportunity in this regard. He made the point that ICANN should either be like organizations such as the Internet Engineering Task Force (IETF), the World Wide Web Consortium (W3C) and the Number Resource Organization (NRO), with no government involvement at all, or like other organizations, such as the ITU or UNESCO, with an intergovernmental structure.

The representative of the United States of America said the Internet in its uses had begun to involve governments, the private sector and civil society in new forms of enhanced cooperation on an unprecedented scale. He added that the IGF was itself a remarkable example of a new enhanced cooperation and underscored the importance of a forum like the IGF, which offered an opportunity for interests with diverse views, which were united by a shared commitment to the constructive evolution of the Internet and its uses. This was the original vision of the Internet and of the IGF that came from the Tunis World Summit on the Information Society in 2005. The IGF would remain vital if it preserved this original vision.

All speakers highlighted positive aspects of how discussions about “enhanced cooperation” were having a positive influence, for example action to combat child abuse images in Brazil, the extended involvement of stakeholders in the recent OECD ministerial meeting, or improvements in the way that IP address registries interacted with relevant stakeholders.

The moderator concluded that the session left forum participants with a broader understanding of different stakeholder positions on the issues. She suggested that the IGF perhaps had a valuable role as a “non-threatening environment for discussion,” where participants could talk, share practical experiences from different perspectives and move to the point where people listen to each other, moving from a disconnected series of statements to a shared conversation.

The Chair closed the session with a perspective from the business sector. He described the Internet as a great asset, and that all of us have had a collective responsibility to manage this asset well, because it had the potential to help us eliminate poverty very quickly, address important issues around education, health and a host of other things. The Chair expressed that the collective attempt to bring greater focus on the management of this asset in a cooperative fashion would yield significant results as we moved forward.

Open Dialogue Session

The Open Dialogue was chaired by Mr. Madhusudan Mysore, Chief of Customer Care Operations, Tata Communications, and was moderated by Ms. Jeannette Hoffman, Senior Researcher, London School of Economics and Political Science (LSE)/Social Science Research Center Berlin, and Mr. Chris Disspain, Chief Executive Officer, AU Registry and Chair Council of Country-Code Names Supporting Organization (ccNSO).

The session focused on many details that had been broached in the morning meeting and the moderators arranged the session to focus first on issues raised in the session on the “Transition from IPv4 to IPv6,” followed by contributions on “Global, Regional and National Arrangements.” The moderators also made a call for any other issues; any topic on critical Internet resources would be welcomed in the dialogue.

One issue that was discussed was the transition or migration period which required a shared responsibility if it was going to be completed in time. This would require the governments, the operators, the vendors, the consumers, all of them, taking charge of their respective roles, and a certain coordinated approach to make sure that an orderly migration would happen.

Another extended discussion concerned the risks involved. Some reported that the main risks were not with the technology, but were associated with not moving forward with IPv6 deployment. And, it was said that in order to minimize this risk, it was important that the planning processes be done very carefully and that all of the issues were taken into consideration.

The need for education and public awareness was also discussed. This was seen as a shared responsibility that would be fundamental to the whole process moving forward. Governments had a role to play in advising and informing and getting the citizens on board. Furthermore, governments needed to be early adopters of IPv6 and should use it in their own networks as a demonstration of their commitment, and as an encouragement for the business community and the private sector to move forward as well.

There was also a discussion of how to deal with the many IPv4 addresses that were not being used and not accounted for. Some held the view that it was necessary to create a legal market for these addresses so that the sales would not be limited to the black or grey market. Others pointed out that even if these addresses were made available, there was still a need to start the migration process.

The second section of the open dialogue session was devoted to a broad exchange of views on “enhanced cooperation” and the management of critical Internet resources and also about the role and value of the IGF itself in this discussion. There were some expressions of frustration concerning the IGF and other processes, with frequent references to ICANN by many speakers. A number of speakers emphasized that in processes that were bottom-up and often voluntary

participants needed to be willing to put in something in order to get something out. This applied not just to ICANN, but also to other processes.

Some speakers considered the IGF itself an example of “enhanced cooperation.” While some held the view that the IGF was about bringing together different stakeholder points of view across traditional boundaries, others believed that it was about achieving development objectives. A speaker noted that the Tunis Agenda indicated that “enhanced cooperation” was not about creating new institutions. Speakers also suggested that perhaps it could be a function of the IGF to help reach agreement on what was meant with this term.

Participants discussed the evolution of ICANN, with some expressing frustration about the Government Advisory Committee (GAC), and also about participation and getting involved. However, others remarked that the processes were open and all had the opportunity to contribute and participate.

One speaker recalled the history of the debate on Internet governance since the first phase of WSIS in 2003. In his view, the focus of the IGF should be on how critical resources should be managed. He held the opinion that governments should have the overall responsibility for this task. The IGF should be used to reach consensus on this matter. If the IGF were not able to reach such a consensus, the issue should then be brought to the attention of the General Assembly.

A number of speakers expressed the desire that the United States Government should step down from its pioneer and current role in oversight of critical Internet resources and relationship with ICANN through the Joint Project Agreement (JPA). They suggested the JPA should not be continued. However, opinions were expressed that some method of accountability should be introduced as a replacement. It was suggested that the IGF could be a space where work could be done to take these ideas forward.

Panel Discussion on the Transition from IPv4 to IPv6

Chair : Mr. Gulshan Rai

Moderator: Ms. Bernadette Lewis, Secretary General, Caribbean Telecommunication Union (CTU)

Panelists:

- Mr. Adiel Akplogan, CEO, Afri NIC/NRO
- Mr. Kurtis Lindqvist, Netnod
- Mr. Milton Mueller, Professor, Syracuse University/Internet Governance Project
- Mr. Satoru Yanagishima, Director of Internet Policy, Ministry of Communications, Government of Japan
- Mr. Jonne Soininen, Nokia
- Ms. Tulika Pandey, Additional Director, Department of Information Technology, Ministry for Communications and Information Technology, Government of India

Extracts from the Transcript of Proceedings

Introductory Remarks

GULSHAN RAI:

As all of you know, the Internet Protocol is one of the pillars of the Internet. IPv4, when designed 20 years ago, was based on those days' requirements and what we thought at that time the Internet would look like. Since then, there has been a lot of change in terms of the requirements as well as the technology, which is evolving at a much faster rate than we thought about. The question is whether IPv4 will be able to meet the requirements we are seeing, particularly when we are moving towards the mobile culture.

IPv6 has been designed more than a decade ago. It is a 128-bit architecture and gives you a lot more addresses than what the world has today. We have 3 billion mobile connections and 1 billion Internet users, and they're going to double. So these IPv6 addresses will be sufficient for the future growth. IPv6 also has been designed to provide more features, including more effective routing, effective security, translations, as well as mobility. Many countries are working very aggressively to transfer from IPv4 to IPv6, including Japan, Korea, US and many European countries.

In India also, I personally have been involved in my job as head of the Education and Research Network. When we made a transition from IPv4 to IPv6, we ran dual-stack IPv4 and IPv6, which we had to do because the network was connecting the educational institutions and GIAN, which is a totally IPv6 network and the education backbone in the US network. We thought it would be very difficult to make the transition, but we made the transition from IPv4 to IPv6 in the shortest possible time.

Today, we have with us Ms. Lewis, who is the Secretary-General, Caribbean Telecommunications Union, a very experienced person in this area. She will be handling the session. And we have a very good mix of panelists who have experience from industry, government, and they will be talking about all the functions involved in the transition from IPv4 to IPv6, the business case, the importance of technical issues and other administrative issues.

BERNADETTE LEWIS:

An integral and critical aspect of the functioning of the Internet is the IP, or Internet Protocol, addressing scheme. IP addresses are the numbers that uniquely identify and enable connection of all the devices to the Internet.

When IPv4, with its four billion addresses, was introduced in 1981, it was inconceivable that the address pool it yielded would be exhausted and no one could have anticipated the phenomenal growth of the Internet. Consequently, the methodology for allocating IP addresses wasn't necessarily the most efficient way. So we've come to the point at this time where we are facing exhaustion of the IPv4 address space.

The deployment of the new addressing scheme, IPv6, with 16 billion possible addresses, was introduced in 1999. But the deployment has been somewhat slow. The panelists in this session will consider the imperatives and the issues surrounding the transition from IPv4 to IPv6.

I'd like to start with Adiel, and I'd ask him to begin the discussions by laying a foundation of understanding and explaining some of the IP addressing scheme issues, and also to give some insight into the nature of the transition to IPv6.

Presentations by the Panelists

ADIEL AKPLOGAN:

Ten years ago, studies already showed that IPv4 will exhaust, the Internet will grow, and there was an assumption that when IPv4 will be exhausted, IPv6 will have sufficient takeup so that there will be no issue. But what really is happening today is that, yes, Internet has grown. Yes, IPv4 is exhausting. But, no, IPv6 has not been implemented by network operators. Through the bottom-up process for developing policy in various regions, there are a lot of discussions among the community to define policy that will soften, as much as possible, this transition period. Two issues

have been addressed by the community. First is how to make IPv6 allocation easy for operators. A second aspect is how can we make sure that when the central pool of IPv4 address will be exhausted, we still have the ability to allow newcomers to have at least a minimum IP address to start up their network, while transitioning to IPv6.

So today I think we will try to raise different aspects of the issue in this panel and address them from different perspectives. I will begin by giving some perspective on what is the status of the deployment. Just to give a number, about 15% globally of networks are IPv6-ready or are doing something about IPv6 today. So you can see that there's a vast majority of networks which are still using IPv4 addresses. And we are envisaging that the two protocols, IPv4 and IPv6, will coexist for a very long period of time before IPv6 will take over from IPv4.

There are several studies done to try to anticipate when we will run out of the central pool of IPv4. Globally, it's around 2010, 2011, when we will completely run out of the IPv4 central pool. There will still be some IPv4 which will be managed at the area level. But the IANA, which allocates IP address to areas, will run out.

BERNADETTE LEWIS:

Since Kurt has had the experience of implementing IPv6 on a number of networks, I'm going to ask him to describe some of the challenges that operators face in doing their implementation and introducing IPv6 into the networks.

KURTIS LINDQVIST:

I'd like to share some of the issues and development that's happening in the operator world and from an operational perspective when it comes to the transition between IPv4 and IPv6.

The most obvious and the most cited one is that there is actually no real customer demand for a transition. The only thing customers want to do is run their applications, as they do today. They want to run their peer-to-peer applications, they want to access their Web sites. They have no notion of IP transport, they don't really care and they shouldn't have to. IPv6 doesn't enable any new services for the end users that we can't deliver today. The only thing it does is address the shortage of V4 addresses, something that users are happily unaware of.

So what are the operators doing on this? Deployment of the IPv6-capable equipment in the core networks is happening incrementally as the operators go and procure new equipment, deploying hardware or software as part of their normal upgrade cycles. The reason it's taking time and happening so slowly is, obviously, there's no different revenue for providing IPv6 services. You can't charge extra because you access your favorite Web site from a different IP protocol. And that is one of the reasons why this is taking time. And it's also a reason why forced upgrades on the operators will make very little economical sense because they don't carry any additional revenue.

In this regard, it's interesting to see that the operators in both the developed and the developing world are probably facing exactly the same challenges. There is lack of commercial drivers. But they are still faced with the upgrades. The main driver is the exhaustion of the IPv4 address space, because we still need to address our customers as their numbers grow.

The problems that the operators face in the lack of drivers is the same also for end users and enterprises. In the developed world or in markets that are fairly mature and fairly saturated, in order to deploy IPv6, the operators will have to upgrade all their home computers, hardware, software, cable TV modems, home modems, gateways, firewalls. There's a large deployed base that will have to be upgraded. And one might argue that here the developing world or the smaller markets might even be at a disadvantage as most new or modern equipment being sold is actually already supporting this.

The core equipment in the carriers' networks and the operators' network in the backbones is already supporting IPv6, since most of the equipment being bought today does support IPv6. What is becoming an issue and a critical point to address at the moment is getting operational experience deployed into the field, finding what pieces are missing from the architecture, from the protocols, and what is lacking in terms of operational tools that the operators need to run this, in terms of software, configuration utilities, et cetera

One of the things that we have faced in deploying IPv6 is that products might support IPv6 for actually forwarding the packets, but they lack operational support tools needed for full management, troubleshooting, et cetera. Another aspect is that vendor pricing has actually currently charged the operators extra fees for IPv6 support, and that hasn't helped. But these are the negative issues. There are also very positive signs. Most of the vendors are starting to ship IPv6 as part of their normal product offerings. And a lot of the operational support tools are being migrated to IPv6 support as well.

However, we will still have end users out there in the developed and the developing world that have equipment that won't support IPv6. These users must still be able to get connectivity. And how do you support them? And also, if we start having end users that might be running both IPv4 and IPv6 in parallel, or in the future may be only running IPv6, how do they get to IPv4 services that might not choose to migrate to IPv6?

The Internet Engineering Task Force, the IETF, is currently working quite actively and very hard on developing translation mechanisms between the two protocols so that you can reach services and we can support these last customers who will run IPv4. I personally think that we will see IPv4 and IPv6 in coexistence for at least all of our lifetime.

The other thing currently operators are working hard for is getting IPv6 support into the customer premises equipment, DSL modems, cable TV modems, middle boxes, firewalls, et cetera – a category that so far has been lacking in IPv6 support. The operators are pushing very hard to get this, but so far have had very poor support.

But the good news is that they are catching up very fast. They are realizing they are missing a critical component.

BERNADETTE LEWIS:

We have a vendor here, Mr. Jonne Soininen from Nokia Siemens network. Perhaps Jonne could give some idea on the availability of IPv6 equipment, the support that Kurt referred to, and the whole transition process from a vendor's perspective.

JONNE SOININEN:

For vendors, the transition from IPv4 to IPv6 has been already ongoing quite some time. I'm going to talk about what that means in the past, what is the status today, and what I see going on in the future.

This has been a very long process for vendors, which has included getting IPv6 ready in the standards and the technology itself, and then getting that implemented in different products.

Like the Chairman said in the beginning, IP is the core of the Internet. For this reason, the transition to IPv6 affects almost every product that speaks IP. So this has been a painful process that has made us go through many of our products, and think about how we want to transition from IPv4 to IPv6 and how we want to enable IPv6.

For a company like us whose roots are in the mobile industry, the need for IPv6 became imminent very early on when IP became important for our products. It was clear for us that we are now talking about more than 4 billion mobile phones in the world and looking at the IPv4 address space, how much of that is left, it's clear that we have to do something. It also has been very important for us to be early in the market, and being early in the standardization and the technology creation phase allows the vendors to understand what actually has to be done. Most probably the first time you do it, you don't do it right, and you need a little bit of operational experience as well with implementation. You need to see how you can introduce it in a way where the end user doesn't have to care about that.

In general, we have introduced IPv6 pretty early on in our products, both on the handset side, in the categories that we think would be needing that first, and also in our network products in the parts that we think that the operators will need it first. Basically what we have thought about is how to get IPv6 to the end user as early as possible, and then look at the other parts of the network after that. This allows the operators to transition to IPv6 and start IPv6 service as soon as they wish to. Our peer companies have also introduced IPv6 in their products, and the PC and operating system manufacturers have introduced IPv6 support – so maybe some of you already are running v6 without actually knowing it.

Everything like this needs experience. We are going to do some mistakes. There are certainly challenges ahead of us. But I am sure that we are on the right way, though a little bit slower than what we expected. The good thing is that it seems that the operators are now waking up and noticing that they have to deploy also IPv6,

and there is more and more, so to say for us, as a vendor, customer demand on for IPv6, and that part has been at least partly solved.

BERNADETTE LEWIS:

It's quite interesting, the last two panelists pointed to a need for a certain amount of cooperation between the vendors and the operators. Perhaps Kurt could give us some indication as to the cost implications for deploying IPv6 in the network.

KURTIS LINDQVIST:

As I said, I think that most of the investments will happen as part of the normal upgrade cycles. And I think that's true for training of staff, too. The real cost will come with the actual man hours that have to be spent doing the configuring. That said, I do think this is actually easier than people think. That's what I have seen as well.

BERNADETTE LEWIS:

It's clear that the transition from IPv4 to IPv6 is really a shared responsibility, and the various stakeholders and communities have to work together in enabling a smooth transition. We also need to look at the social and economic implications and to develop appropriate policies for the migration to IPv6. Our next speaker, Tulika Pandey, who is from the Department of Information Technology of the government of India, is going to be talking about some of the social and economic implications for the transition.

TULIKA PANDEY:

I will try to address this issue under three different dimensions – the technological, the social and the economic.

If I look at the technological aspect, the request would be to have a mechanism for coexistence of both protocols to avoid unacceptable service interruptions and any possible damage to critical distributed applications, many of which were not designed to benefit from the new functionalities enabled by IPv6. What is not globally acceptable, as I understand it, is a large-scale deployment of the new IPv6 architecture, to provide disruptive services or applications or innovations. But what is generally acceptable is a gradual interoperability and coexistence between IPv4 and IPv6.

If I take the case of the service providers or the network handlers, what they would prefer, they would prefer to preserve the heavy investments that they have made to run and deploy the IPv4 networks. So their plea would be to allow the time for them to transition from IPv4 to IPv6. We had IPv6 addresses available to us before the IPv4 address space got exhausted. So most of us understand that IPv6 is here to complement and supplement the existing IPv4 address space.

One common perception that most of the service providers of the developing countries have is that the new protocol is very similar to the existing protocol, but

with an improved routing, auto-configuration capability and an improved multicasting and efficient infrastructure. Would that be enough of a business case for them to make investments to upgrade the network and application services to reach out to the consumers for whom these do not matter?

The advancement of the IP may not be transparent to most of the end users. They would just demand services from us. Tomorrow, we see that the mobile Internet would be the call of the day. Here, one issue that is very important for us to put forth is to check whether we have included backward compatibility of the IPv6 protocol with IPv4. If not, we have to address that. If yes, well, the party is on.

And last but not the least, the business case for IPv6 that all of us agree with is the Internet itself. We want the Internet to continue. And for that, we need addresses. Socially, we can all be very happily telling our end users that the IP address is an addition to your personality, in addition to your name, your address, having an IPv6 address is an addition to the personality that you have. And maybe that would make a big business case.

In the end, I would like to just put forth what we have tried to do in our country, in India. We have the second largest number of service providers, and yet we have attained only one-eighth usage of IP addresses until now. That implies that the demand for IP services and Internet is yet to happen in this country, and the cultural diversity and the need for localized content is something which will be very, very essential to push the case for demand for more IP addresses. The government of India has taken many initiatives, and one more core program is the national e-governance program where we are trying to reach out citizen services for people to realize the benefits that they can gain from Internet, per se. Edutainment, education and entertainment is another social requirement which may push the case for a demand for IP addresses, is what we see here.

BERNADETTE LEWIS:

So we have had a number of different perspectives on the IPv4 to IPv6 transition. Now, in my own experience in the Caribbean, we hear there are a lot of myths about IPv6 and all the wonderful things that it's going to do, and I would like to invite some of the panelists to debunk some of these myths.

ADIEL AKPLOGAN:

There have been a lot of stories about IPv6, but what we have to understand is IPv6 is the continuation of the Internet. It's not a new Internet. For sure the protocol has evolved, but it won't make the Internet safer, it won't make the Internet more secure. If we take, for instance, auto-configuration, the way it works with IPv6 is slightly different from what IPv4 does, but the end point is the same. Same for security. There are mechanisms today for securing IPv4. In IPv6, those mechanisms are included, but you will still do the same thing and have the same attitude in securing your network on IPv6 and IPv4. And of course, IPv6 will come with its own challenges, which are different from IPv4.

One thing is sure, IPv6 allows more unique IP address, it will allow more equipment to be connected to the Internet, will enable applications which will allow different kinds of possibilities, making challenges, for instance, of security, because we will have large connection of equipment.

JONNE SOININEN:

I would like to echo what Adiel said. I think somebody put it very nicely – that IPv6 brings three new features, address space, address space and address space. And that is the main driver. We are talking about a situation where we are running out of IP version 4 address space. And IP version 6 addresses that.

When we run out of address space in IPv4, that, of course, doesn't mean that the Internet itself would stop existing and the IPv4 addresses would vanish. The network will still be there. But the growth of the Internet can be hampered quite a bit by not having enough address space to grow. IP version 6 allows that.

Also, the bigger address space might allow us to do things better, more efficiently, than the small address space that we had. And maybe there is something new that comes out of that fact that we can have not only an address per host or address per user, but maybe have multiple addresses per host, multiple addresses per user. And then maybe somebody will come up with a great innovation using that fact. But the main thing of the IPv6 is really the address space.

BERNADETTE LEWIS:

Perhaps we can field one question, one or two questions, from the audience at this time.

FROM THE FLOOR:

I'm from Uganda. I work for a regulator there. From the discussions we've had so far, it has me a little bit concerned whether we should have a deadline after which we should discourage production of IPv4 equipment. Do you think there is a need for an international agreement on kind of timelines we can have to continue using IPv4? Or since IPv4 equipment can operate properly independently of the IPv6, there probably could be no reason why we should have a deadline for ceasing to use IPv4.

ADIEL AKPLOGAN:

That could be a simplified way of seeing the thing, by setting a date. But I'm sure that this is something that will be taken care of by the market, because what will happen is that, more and more, people will now be asking for equipment which is IPv6-compatible. That's why it is very critical to see that the business model of IPv6 is really the continuation of doing business. Because vendors will be first to propose equipment which is IPv6-ready by themselves, because they want to sell them. They cannot continue selling IPv4-compatible equipment when the next generation of the Internet is IPv6. So an awareness campaign is very important, so that user

operators know that when they are planning their network, to integrate IPv6 factor in their future that they request from their vendor. Having a deadline will probably not solve the issue that is raised here.

FROM THE FLOOR:

The development that is happening in the standardization field is trying to make sure that this equipment can coexist for the foreseeable future. Doing forced upgrades doesn't carry any economical value, because there is no additional revenue, as we said before. There is no new services that you can provision over IPv6 that can pay for a forced upgrade. So from a financial point of view for the operators, that doesn't make sense. Working on the technology for having these two protocols coexist and interoperate is where the operational community is going and where we're seeing most of the technological development at the moment.

JONNE SOININEN:

I would like to echo the previous two speakers. I don't think we need a deadline. At least from the vendor community, we feel that we will have a deadline. That's when our customers won't buy anything that is only IPv4. So I think the market will take care of this.

In addition, I would find the idea of regulating IPv4-only equipment problematic, because where would you put that point? If somebody actually needs IPv4-only equipment, even after the addresses have run out from the address pool, because they happen to have a IPv4 network, why wouldn't they have the right to buy that?

In addition, I would like to echo what Kurt has said, which is, in IETF, we are working very hard to make sure that we can make the IPv4 and IPv6 networks coexist. So I don't think there is a need for such a deadline. The market will drive the need. And it seems to be driving it currently quite well, actually.

BERNADETTE LEWIS:

I would like to ask now Satoru Yanagishima from Japan to give the Japanese experience on the policy developments and policy issues that have been raised and what they are doing on the policy front to deal with the transition from IPv4 to IPv6.

SATORU YANAGISHIMA:

I will talk about the Japanese action plan for IPv4 address exhaustion. We are thinking about making IPv6 the standard Internet service for Japanese customers.

Internet users have been growing at a rapid rate. As a result, IPv4 address use is also expanding. In fact the global communication rate of IPv4 addresses has doubled since around 2004. Taking into consideration the fact that the international stock of IPv4 addresses is running short, we held a study group on Internet Smooth Transition to IPv6 from August 2007 to June 2008. There were three items on the agenda. The first is to estimate the exhaustion date of international IPv4 addresses and the problem this will create. The second is to examine the measures for IPv4

address space exhaustion. And the third is to examine the programs in the introduction of the measures and solutions.

The study group estimated that because the consumption rate was unlikely to decline, the IPv4 pool would be exhausted between mid-2010 and early 2012. Consequently, IPv4 address allocation in Japan was assumed to become impossible between 2011 and mid-2013. When IPv4 addresses are exhausted, the Internet at that point can be maintained, but its further development will be impossible, because IPv4 addresses, which are required to connect devices to the Internet, will run short. It will have an enormous amount of negative influence. Transition to IPv6 should be eventually carried out as a basic action. But it seems unlikely that all players will support IPv6 by 2010 all over the world. Therefore, the study group concluded that it would be appropriate to utilize NAT/NAPT at the same time.

These actions are to be carried out through three stages. Up to 2010, networks and services are to prepare for IPv6. At early stage of exhaustion, all users will be allocated IPv6 addresses as a standard service. While new users will be allocated private IPv4 addresses, existing users can still continue to use global IPv4 addresses. At a middle stage of exhaustion, as global IPv4 addresses will run short to use NAT/NAPT, existing users will be required to move to private IPv4 addresses.

The study group created the action plan, consists of 68 items. And the study group also created a schedule of the strategy for each player to implement the action plan by 2010. As for the government, we will publicize the Japanese policy both domestically and internationally, and monitor the progress. Also, we will consider tax exemption for promoting introduction of IPv6-compatible systems as well as capacity-building programs for engineers.

We studied a cooperative project of Japanese associations of Internet and telecommunications industry, which is called the Taskforce on IPv4 Address Exhaustion. The taskforce created the scope of work for each association. The taskforce would like to give some messages to the stakeholders. For example, there are four messages to ISPs. The first is, ISP must carry IPv6 packet in order to provide the network connectivity for IPv6-only users and service and so on. Japanese anticipates that such approaches could serve as best practices for other communities. It's time for action.

BERNADETTE LEWIS:

I think the fact that you've put together a taskforce points to the requirements for a multistakeholder approach to this problem. It is not in the purview of the government alone. It's not for the private sector. It requires a combined approach to getting the implementation of IPv6 on a national basis.

I would now like to call on Professor Milton Mueller. He is going to tell us a bit this morning about the changing role of the Regional Internet Registries.

MILTON MUELLER:

The Regional Internet Registries, or RIRs, handle an area of Internet governance that is becoming increasingly important, but many of us know very little about it. My comments here are based on a longer paper recently released by the Internet Governance Project. Basically, we see two transformational problems, two problems that are really changing the nature of the RIRs. One of them is IPv4 scarcity. The other is a demand for more security on the Internet.

With respect to IPv4 scarcity, most of the other panelists have talked about how that creates a pressure to migrate to IPv6. And, of course, that's correct. What I want to focus on is how it changes the practices and policy-making processes of the RIRs.

The policies of the regional address registries were based on the existence of the free pool and on the idea of assessing the need of different companies for their IP address applications. Those practices are no longer relevant once the free pool is gone. There are all kinds of ways in which scarcity will change the procedures of the regional registries and the economic stakes of their decisions. For example, you may have multiple players who all have equal needs for the resources competing for a fixed number of addresses. And the RIRs simply are not in a good position to make those kinds of decisions.

Another key issue is that we would want to establish a mechanism for transferring resources from people who don't need them anymore to people who do need them. For example, suppose that an Internet service provider makes a major migration to IPv6, and then they could get rid of all their addresses and give them to somebody else. The current system is based on the idea that they would do this voluntarily. They would simply return them to the RIRs. But some people have spoken about a stronger policy, about instituting market transfers of these resources, in effect, allowing people to buy and sell address blocks in the IPv4 space.

Another big problem for the RIRs is a need to reclaim address resources that are unused. In fact, as much as one-third, maybe almost half of the address space was allocated before the RIRs existed. And those so-called legacy address resources are sitting out there. Sometimes they are not used. And we have no contractual authority over their holders, so the question becomes, how do we gain control of those resources or do we need to worry about how to do that?

Of course, most of the controversies center on the transfer markets. And people talk about the impact of market processes on access to addresses. They worry about the emergence of black markets or gray markets if we don't legalize these transfers. And they worry about whether instituting a transfer market would slow down IPv6 migration.

A few quick words about security.

The system of address governance is a very loose, self-governing system, formed by membership associations of Internet service providers. For example, it's perfectly possible for you to just jump on somebody else's addresses, and if they're not using them or they don't notice, you could use those addresses for a long time, and some

spammers and criminals have done this. So now we're talking about ways of authenticating address blocks, instituting what's called the RPKI, which would allow you to identify who was a legitimate owner of an IP address block.

It's also true that in the current system, routing objects are voluntary and decentralized. And there's some talk about instituting a secure routing protocol that would authenticate route objects. So in the past year, there have been proposals submitted to ARIN, APNIC and RIPE, to develop address registry-based routing registries that combine global RPKI authentication of address assignments with route object authorization information. This would provide the ability to authenticate not only what autonomous system was using a particular prefix, an address prefix, but also what routes it announced to the Internet.

The interesting thing is that implementing this kind of a system also raises major governance issues. It could fundamentally change the role of IANA and the RIRs, because it could be used to link control of IP number resources to control over what is routed on the Internet. Up to now, the RIRs' function of registering and rationing address resources has been only loosely related to the routing practices of Internet service providers. But RIRs could become a point of more centralized control. And that could attract all the political problems that we now associated with ICANN. But these changes might also make address management more efficient and help fix some well-known security problems.

This means that we need to think more broadly and comprehensively about RIRs as institutions and about what they do and what they should not do. In general, I would advocate that we need to maintain the regional Internet registries as neutral, transnational technical coordinators, and we should not try to load up their activities with public policy functions.

BERNADETTE LEWIS:

I just had a question with respect to your talking about the changing role of RIRs. Adiel had pointed to the fact that the policy process is a bottom-up process. And, essentially, the community sort of dictates how things unfold in policy development. But then you've just mentioned this issue of, now, a greater degree of control by the RIRs. I suspect that there's a certain tension between those two positions. Could you just expand on it for me, please?

MILTON MUELLER:

Currently. The RIRs are basically membership associations of ISPs, and the people who participate in them are basically technicians. We would like to see that maintained. But the problem is, we're afraid that because they are open, people could come into them with policy agendas and try to manipulate their functions in order to achieve policy and regulatory objectives. And this would fundamentally change the nature of RIR membership and would make the whole process more complicated and more difficult for the RIRs.

It's fairly easy to come to consensus and agreement when you are dealing with a homogenous community of technical experts who are operating ISPs or hosting sites, but when you have got a whole heterogeneous set of advocacy groups or governments, policy interests, you can have a lot bigger trouble, as we learned in ICANN.

BERNADETTE LEWIS:

Adiel, did you want to add to that?

ADIEL AKPLOGAN:

The risk is there, but as the whole process is a bottom-up process, we believe that those experts and members who form the majority of people who deal with RIR policy will quickly react to that. And we have seen a situation like that where the community have very quickly identified those things. However, probably with the change of the environment, this will become more and more.

I personally believe that the bottom-up approach is an advantage to try to counteract that risk, because the reality is that we have to work keeping in mind the stability of the Internet, the continuation of the business of our members, who are the network operators and ISPs. And I think that we'll continue to watch for any capture of the process.

Discussion

BERNADETTE LEWIS:

I think we can certainly open the floor now to some questions.

FROM THE FLOOR:

I'm with Yale Law School, and I have a question about some of the new translation techniques that are being developed by the IETF. My understanding is that eventually, when we can't do dual stack anymore, when we run out of IPv4 addresses, that will have a certain group of individuals that are IPv6 only, and then other servers and individuals and technologies that are IPv4 only. So may I ask those on the panel that are involved in the current activities of the IETF to say a few words about the translation that's being developed, how long it may take to develop that and, once it's finalized, how long it will take to get into products and where does it need to get into products?

FROM THE FLOOR:

I'm the head of APNIC, the Regional Internet Registry for the Asia-Pacific. I am also the Chair this year for the Number Resource Organization which is the coalition of the five RIRs. So I can speak to some extent for the five RIRs here.

In following up Milton's interesting concerns about the RIR system and preserving and protecting it, which I appreciate, some of what he said seemed to indicate that the RIRs as membership organizations – and formally the formal bodies of the RIRs all are membership associations – would be, as such, subject to some sort of capture and some sort of decision-making scenarios that might happen. The implication to me was these things might happen behind closed doors in some manner.

I would like to distinguish between the formal RIR organizations which are legal structures and the wider policy development processes that each of the RIRs has. And in every case, the policy development process is open to all newcomers and all comers. And that does, as Milton said, open it to all sorts of outside interests, outside of the traditional technical communities. But those policy development processes are also designed very conscientiously and consciously to adapt to the pace of decision-making in a widely distributed manner.

So all of the RIRs, through those policy processes, make great efforts to open them up to remote participation to allow comment periods and inputs to come from whoever might have some concerns. So I think the implication of Milton that somehow some rapid closed-door decision-making might happen is actually not possible under the current open systems that all of the RIRs adopt. And I would just like to reassure you of that.

But other than that, I think Milton's comments are very valuable and I find very little there to disagree with.

BERNADETTE LEWIS:

I'm going to let Kurtis and Jonne respond to the first question.

KURTIS LINDQVIST:

The driving factor of these translation mechanisms in the IETF is for the people who can't run dual stack. If they could already run dual stack, it means they are already capable of handling IPv6 or IPv4 or both. So the translation mechanism that IETF is looking at it is doing it from IPv6-only networks into the legacy IPv4 networks or the other way around, enabling hosts that can't get IPv6 to access the operator's core network. And depending on which of these two scenarios you are looking at, the translation is at two different points. But it is clear this is a feature for the operator networks. It is not a feature the end user has to worry about.

As for the timeline, it's always very dangerous to predict IETF progress. It's probably one of the topics being worked on most at the IETF at the moment.

JONNE SOININEN:

I would like to echo what Kurt has already said. IETF process will take its time. But I think this is one of these items where the timeline is well understood in the IETF

and people are actually very seriously working to get the technology out as soon as possible and hopefully as soon as it is needed.

On the availability of products, this is not something that will affect all of the equipment in the Internet. So the new kind of translation is not something like IPv6 has been where you have to update everything from the operating system to the application. This is something that can be added on as a separate product. I'm not going to give any predictions when these products will be in the market, but of course, at the time that the standards are mature enough and the market is ripe, I'm sure that the products will be also available.

FROM THE FLOOR:

I am based in Switzerland and running a collaborative IPv6 project between Europe and India. From my point of view, the technology is ready, the standards are ready, it's only decisions and deployment which is missing at the moment.

From my point of view, the best way to go is bottom-up, as many people said. But the people also said the vendors are ready with terminals. But will they announce it? If I go and buy any terminal, the vendor doesn't know there is an IPv6 capability. And if I go to any major ISP, the marketing people don't know IPv6. And if I go to the exchange people, they don't know IPv6.

So there is a lack of information about IPv6, a lack of skills of operating IPv6. And then also, the network policy decisions to make it happen, particularly from developing countries, where the demand is so high they are ready to pay billions of dollars to have a 3G deployment, whereas they can't invest a few million to deploy IPv6. All these emerging countries have hardly any IPv4 addresses allocated to them, whereas the IPv6 address space, there is plenty available.

So there is a complicated issue. Many users will go to to surf the Web for information. If it is available as IPv6-compatible information then users will look for IPv6, they will know of IPv6, but there is awareness to be created.

BERNADETTE LEWIS:

There is a multifaceted question and I am going to give panelists time to respond to it. I think certainly one of the issues is that of public education, awareness and training. That came out very clearly. So perhaps Adiel would start, then with Kurt.

ADIEL AKPLOGAN:

I will agree with the previous speaker about the need of awareness and training. And I will just give an example of my region which AfriNIC serves, which is the African and Indian Ocean. We have seen this at the beginning of AfriNIC whereby we have only two IPv6 networks in the region where we start. But by doing training, by informing people, we have seen a very tremendous growth in IPv6 usage. So training and information is critical in this process, and this has to be done not only

by RIR or by people who are specialized but it's a task that everybody, at every level, should do to encourage people to move to IPv6.

KURTIS LINDQVIST:

I thought I would end on a positive note and give you an example of one of these bottom-up real deployments and show this is actually happening. There is a French ISP who is becoming famous because of their deployment. They have 3 million DSL subscribers. They developed their own CPs and they are have been able to deploy IPv6 through a protocol or through a mechanism they invented themselves. And today they have 250,000 subscribers that actually choose to use IPv6.

GULSHAN RAI:

It's been a very excellent and stimulating session where the panelists made very interesting remarks and brought their experience with actual implementations. The transition from IPv4 to IPv6 is not that difficult today when you talk about the hardware. The actual challenge comes when you want to really enjoy the potential IPv6 and make a transition in terms of applications.

There are certain myths about the transition that panelists have talked about. We should collect references to what is happening worldwide, to large networks that are migrating to IPv6, and put those references and case histories on the Web so that those myths are dispelled, and people are encouraged to migrate.

In my view, there is no escape. We'll have to migrate very soon – maybe in two or three years it will start happening.

Panel Discussion on Global, Regional and National Arrangements for Internet Governance

Chai : Mr. Ramlinga Raju, Founder and Chairman of Satyam Computer Services Limited

Moderator: Ms. Emily Taylor, Oxford-Nominet (UK), Director of Legal and Policy

Panelists:

- Ms. Haiyan Qian, Acting Director, Division for Public Administration and Development Management, Department of Economic and Social Affairs (UNDESA)
- Mr. Everton Lucero, Ministry of Foreign Affairs, Brazil
- Mr. Richard Beaird, Department of State, USA
- Mr. Parminder Singh, IT for Change
- Mr. Byron Holland, President and CEO, Canadian Internet Registration Authority (CIRA)
- Mr. Raúl Echeberría, CEO LACNIC

Extracts from the Transcript of Proceedings

Introductory Remarks

MARKUS KUMMER:

The Chairman of this panel, Mr. Ramlinga Raju, has indicated his wish not to speak at the beginning, but to make remarks at the end. So I pass on the floor to our moderator, Emily Taylor, legal director from Nominet.

EMILY TAYLOR:

Before introducing our panel members, I've been asked to set the scene a little bit. This session brings together speakers from governments, civil society, business and the technical community to discuss arrangements for Internet governance. Over the next 90 minutes, you will hear phrases that have become terms of art.

The first of these is "critical Internet resources." While for many, this means the administration of the domain name system and Internet Protocol or IP addresses, the report of the Working Group on Internet Governance in 2005 used the term slightly more broadly to include also the administration of the root server system,

technical standards, peering and interconnection, telecommunications infrastructure, including innovative and convergent technologies, as well as multilingualization. So there is a broad and a narrow view on what is critical Internet resources.

The second term of art is “enhanced cooperation,” which is one of the two outcomes of the World Summit on the Information Society, the other being our very own IGF. The phrase “enhanced cooperation” was coined in the final moments of the Tunis negotiations. It broke what threatened to be a deadlock in those negotiations over public policy issues relating to the management of critical Internet resources. The phrase “enhanced cooperation” appears just three times in the Tunis Agenda. No definition is given. No scope or defined process is included. So when you hear our speakers today talking about enhanced cooperation, the context for their comments is arrangements for the management of critical Internet resources, naming, numbering and more, at the global, regional and national levels. We will here what the different speakers understand by this term and what they believe to be the state of enhanced cooperation in their field from their different perspectives. They will give their vision for the future and further steps they believe might be necessary.

Presentations by the Panellists

HAIYAN QIAN:

In March 2008, Under-Secretary-General of UNDESA, Mr. Zukang Sha, invited nine organizations concerned to provide annual performance reports on the steps they have undertaken towards the enhanced cooperation on the Internet-related public-policy issues. The organizations include Council of Europe, ITU, ICANN, ISOC, NRO, OECD, UNESCO, WIPO and W3C. The information obtained presents the following picture.

First, the meaning of enhanced cooperation, as most organizations concerned understand, is to facilitate and contribute to multistakeholder dialogue. It seems to be also understood that as a formal or informal cooperative arrangement based on stakeholder concept and approach. Number two, the purpose of such cooperation ranges from information and experience sharing, consensus-building, and fundraising, to technical knowledge transferring and capacity training. Number three, the thematic focuses of those arrangements covered by those organizations are very much in line with those being discussed at IGF. Number four, some of those cooperative arrangements have already taken place among those organizations, and more are being developed with other partners and with these nine organizations. Last, the geographical distribution of the coverage varies from global, regional and the national levels.

Notwithstanding of the usefulness of these activities, the challenge that we have been facing in UNDESA is that the term “enhanced cooperation” does not seem to provide us with much practical guidance as to what makes up enhanced level of

cooperation or what makes cooperation truly enhanced. Thus, when requesting the relevant organizations' contributions for this report, we found ourselves in a rather difficult situation, as we could not provide clear or more specific guidelines to the organizations on how to prepare such reports or contributions. Therefore, we might run into the same situation in the preparation of the summary based on these contributions received. Nevertheless, UNDESA is ready now to work on the draft. Upon this completion, we will send it all to the contributing organizations for review and comments. When it's finalized, the summary will be included in the Secretary-General's report on the implementation of WSIS, and it will then be submitted to the Commission of Science and Technology of the United Nations in May, and then to the ECOSOC in July 2009.

Finally, please allow me to voice our view on which further steps might need to take to facilitate this process. The initial step in that direction, in our opinion, is to take stock of the enhanced cooperation activities or programs carried out by those relevant institutions on the regular basis. In this connection, I envisage UNDESA's role in using the existing user-friendly Internet tools to record, to capture and retrieve the data and information on this topic, which goes beyond just providing brief summaries of these activities to ECOSOC in hard copies on an ad hoc basis. With this knowledge base, the interested stakeholders will be able to easily trace such information over time and gain better understanding of the organization's activities related to the issue. And it will also stand us all in good stead in the current effort to further enhanced cooperation on Internet-related public-policy issues.

EVERTON LUCERO:

As the subject of this panel is arrangements for Internet governance at national, regional and global levels, I will start by giving some examples and comments.

At the national level, there has been a very recent initiative in my own country, Brazil, to fight online child pornography. Google, lawmakers, law enforcement agents and nongovernmental organizations signed an agreement that was entitled "a term of adjustment of conduct." It was a great achievement in the end of a nationwide debate and an example of a national arrangement that brought together all stakeholders to solve a problem of great concern to our nation. It will certainly help law enforcement within Brazilian jurisdiction. But there remains the need of an enhanced cooperation at a global scale to target criminals acting from outside the Brazilian borders and jurisdiction.

As an example of a regional initiative, I'd like to refer to the Convention on Cyber-crime. When we started considering it, we faced one preliminary problem. In principle, we do not adhere easily to conventions that we have not participated in the negotiation process. The same problem in due course may also happen with the so-called Anti-Counterfeiting Trade Agreement, ACTA, an intellectual property enforcement treaty related to Internet activity. Both the cyber-crime convention and ACTA made use of a negotiation arrangement that is rather restricted. And it indicates a pattern of behavior of some governments which openly defend

multistakeholderism, democracy and inclusion, but prefer to follow restricted, behind-doors, exclusive arrangements to negotiate new legal instruments. To the extent that the efficacy of these arrangements will depend on global acceptance, definitely they are not good examples of arrangements for Internet governance, although they may work, as in the case of Convention on Cyber-crime, for the region where they were elaborated.

At the global level, let me single out a very positive one, the Numbers Resource Organization. It's a bottom-up, civil society-led arrangement which coordinates a very critical Internet resource, which is IP address allocation, and has so far done a great job by ensuring a due process, transparency in decision-making, and full participation by all, with independence.

Now turning to enhanced cooperation, I would like to refine a little bit this concept to propose that the question before us is, in fact, to which extent do the present arrangements for Internet governance enable governments on equal footing to develop public policy principles on coordination and management of critical Internet resources? I hope that the UNDESA report will give us hints to answer this question.

How are other existing organizations and arrangements cooperating to enhance cooperation among governments? Let's see some examples. Let me start with the intergovernmental ones like ITU and UNESCO. I'd say that these organizations are already promoting enhanced cooperation within their mandates, because, after all, to facilitate development of public policy principles within their mandates is their very reason of existence. It's easy because of the membership and because they are government structures from their inception. They are promoting enhanced cooperation at their own pace, which may not cope with the pace of technological development and innovation that characterizes the Internet. And they might also be faced with the challenge of moving towards multistakeholderism.

With respect to nongovernmental entities, like IETF and W3C, while these set global standards and protocols, governments are not there. Should they be? These organizations are organizations of people, not entities. I think that even if governments send participants there, these participants will be received as any other on their personal capacity. So it seems to me that under the present circumstances, enhanced cooperation may not be an immediate need there. But this reasoning is not valid for ICANN. In fact, many people argue that the main reason for enhanced cooperation having been included in the Tunis Agenda was precisely ICANN. Why ICANN? Well, because even if ICANN is not for profit, it is market-driven. It created a huge market of domain names. It is private sector-led. And, to many, ICANN is seen as the hen that lays golden eggs. Besides that, ICANN is under the oversight of one single government.

In any arrangement, I think we should work with the options of either having no governments at all, like the case of IETF, W3C, NRO, or we have all governments on board, like ITU or UNESCO. But we should avoid coming up with a model

restricted to a few, like ACTA. And, please, let's also avoid models driven by one single government, like ICANN.

The World Summit on the Information Society pledged to create a people-centered, development-oriented and inclusive information society, and invited all entities, public and private, national, regional and global, to incorporate that vision in their respective works. The Internet is supposed to be centered on people, not money; on people, not markets; on people, not profit. My question to ICANN is, when will it pledge to accept and incorporate that vision as its main driving force, instead of privileging a small group of private industries that earn a lot of money out of selling domain names? Please don't take me wrong here. I don't have anything against making money out of this business. But I challenge anyone here to support the idea that a self-regulated market works for the benefit of public interest, in particular, in light of the current global financial crisis and economic meltdown that we are facing.

Do governments have any role to play in that? Can governments be of any help? Yes, we can. In fact, ICANN is also open to government participation through the GAC, of which I am the Brazilian representative and currently vice-Chairman. But our role is advisory. Our contribution may not be observed by the ICANN board. Governments are underrepresented, in particular from developing countries, which leads me to conclude that current GAC-ICANN arrangements are not conducive to enhanced cooperation and need to be reviewed. Maybe the ICANN transition action plan debate is an opportunity to do that.

RICHARD BEAIRD:

The subject of this panel is enhanced cooperation, and, of course, by implication, Internet governance. Let me begin first by reviewing my understanding of enhanced cooperation as found in the Tunis documents coming out of the 2005 Tunis phase of the World Summit.

Tunis spoke – and I should emphasize here, at the highest levels of government – of the need for enhanced cooperation in the future. It associated enhanced cooperation with international public policy issues, particularly related to the Internet. In doing so, it looked at enhanced cooperation from the point of view of relevant international organizations. And it called upon these relevant international organizations to develop applicable principles on public policy issues, again, related to the Internet. But it did so by emphasizing that these international organizations should maintain their own mandates and operate consistent with those mandates. Nothing of the summit changed any international organizations' mandate. Enhanced cooperation was to create an environment that facilitated the development of public policy principles. Then Tunis went on to say that the goal of enhanced cooperation, is to create a process that will be also responsive to innovation and that as a result, the process that was conceived in Tunis is one, I believe, which is quite broad in its understanding.

Taking that as my point of departure, I would like to assert that since 2005, the process that was envisioned in Tunis has been remarkably successful across many

fora and international organizations. Indeed, if you simply look at what has happened since 2005, in a sense we can turn on its head the definition of Internet governance that was developed in Geneva during the Geneva phase of the WSIS process, which spoke about governments and the private sector and civil society acting together to shape the Internet's uses. In fact, what we have seen is that the Internet in its uses has begun to evolve governments, private sector and civil society into new forms of enhanced cooperation on an unprecedented scale. Now, there are many drivers of this form of enhanced cooperation that I'm referring to. But I'd like to refer to two principal drivers.

First, access. Since 2005, access to the Internet has increased significantly. Not only to the Internet, but, of course, to all other forms of communications. And those forms of communications, the multiplicity of platforms that have been created, in turn create opportunities for access to the Internet on a remarkable scale. Mobile is itself significant in terms of its development since 2005. India alone now exceeds 300 million subscribers to mobile services. We are also seeing significant increases in access to the Internet as a percent of population in the regions of the world. As I give these percents, I want to emphasize that while the end growth is significant, much work needs to be done. Africa now exceeds 5% of population in access to the Internet; Asia 18%; Europe, 42%; America's 41%; Oceania 45%. There's good news in those numbers, but there is also a challenge to all of us to increase access as a percent of population, to bring access to the Internet to our citizens.

There is another driver that I want to emphasize that has brought about opportunities for enhanced cooperation. And that is the acceptance of the linkage between economic growth and innovation. As we have seen clearly since 2005, there's now an understanding that, as a function of the economic process, innovation is an important component to that process of economic expansion.

Let me take, then, two examples of international organizations that represent the kind of enhanced cooperation which I think complements not only the driver of access and the driver of innovation, but also suggests a vision of the future where enhanced cooperation may take us. My first example is the ITU, which is an organization which is essentially technical. And my second example will be the OECD, which is an organization that is essentially economic.

There are three areas that I want to refer to when I talk about the ITU. First is infrastructure development. Second is cyber-security. And third is the development of public policy forums within the ITU for purposes of discussing Internet matters.

First, with respect to infrastructure development, I'm choosing as my principal example next generation networks and the work that is being done at the ITU in that regard. All of our countries are in some way or another transitioning to the next generation networks, and, in particular, of course, deploying fully IP-based technologies. The ITU is engaged in work that has already begun to develop recommendations for NGN architecture, interface specifications, quality of service, interoperability, security, generalized mobility and service capabilities. In 2008, we

anticipate that there will be at least 100 NGN recommendations coming from the ITU. And that will be used as a basis of NGN deployment around the world.

Secondly, cyber-security. As Secretary-General Touré has indicated in his presentation, he has launched the Global Cyber-security Agenda. This agenda is, from our point of view, a framework for multistakeholder cooperation in the area of cyber-security. Projects are currently being defined and developed, and measurements for success are also currently being developed as a part of this initiative. Early indications are that the ITU will engage in the development of technical solutions for cyber-security, particularly in the area of trusted identification; it will provide advice on the development of cyber-security efforts and structures; it will also raise the awareness in the global community of the scope of the problem of cyber-security and promote global cooperative efforts.

The last example from the ITU deals with public policy debate on Internet-related matters. The ITU has at its recent World Telecommunication Standardization Assembly adopted a resolution that created a forum for the purpose of public policy debate and discussion on Internet matters. And many member states of the ITU see this as an opportunity within the ITU to focus the debate on public policy matters related to the Internet.

The OECD, and here I want to talk about the Seoul ministerial of June 17-18 of this year, where 39 participating ministers – a number that exceeds the membership of the OECD and includes the European Commission and India, among others – endorsed the commitment to stimulate sustainable economic growth and prosperity by means of policy and regulatory environments, and support innovation and investment and competition in the information and communications technology sector. In so doing, these ministers pledged to work with the private sector and civil society. They also pledged to foster creativity of use of the Internet by maintaining an open environment that supports the free flow of information, and to encourage universities, governments, public research users and business to work together in collaborative innovation networks and to make use of shared experimental Internet facilities. The two concepts – free flow of information and innovation – linking these centers of excellence in society, which were underscored by the ministers in Seoul, seems to me to be a concept that needs to be brought more fully into the discussion of enhanced cooperation.

Because of such drivers as expanded Internet access and telecommunications, and because of the now established link between innovation and economic growth, enhanced cooperation is now more widespread, more complex, and continues to be far more than was envisioned in 2005 as a process by which we understand both Internet policy as well as Internet governance.

I would suggest that the IGF is itself a remarkable example of this new enhanced cooperation. I would also add that if we can speak of a multi-factor productivity growth that includes innovation as a kind of new economic model, then we can also speak of a multi-factor governance model for the Internet when referring to the

Internet, that would include the diversity of examples that we see now in the area of enhanced cooperation.

I would further assert that the ministerial in Seoul was correct in using as its title “Internet Economy”, and indicating that this is the subject that governments, civil society and the private sector should focus on in the current environment, and that the Internet economy represents the complex forms of enhanced cooperation that I have mentioned.

I will conclude by joining others – and this is important from a policy point of view of the United States – in underscoring the importance of a forum like the IGF, which offers an opportunity for interests with diverse views but which are united by a shared commitment to the constructive evolution of the Internet and its uses. This was the original vision of the Internet and of the IGF in Tunis in 2005. And the IGF will remain vital if it preserves this original vision.

PARMINDER SINGH:

I think the panel may be speaking about different things, but referring to the same concept. When we are faced with these kinds of existential issues about what is what, we need to go back to the original basic intentions – why something was created and why did the term come out in the first place. I need therefore to take you back to the World Summit on the Information Society. During the discussions, it emerged that there were two broad pillars around which discussions and outcomes got stacked. One was about the availability of ICTs, the other was about ICT governance. The discussions on availability of ICTs went towards financing mechanisms, and I won't talk about that. But the part on ICT governance was mostly about Internet governance, and the two main outcomes were the IGF and enhanced cooperation. Both were created because the leaders felt that the Internet has changed from being a mere technical infrastructure to a very strong social-political force. And when something becomes such a strong social-political force, it needs to be driven by public interest and needs to be shaped by political processes towards the objectives of a people-centric, development-oriented and inclusive information society.

So the purpose was to see how can we shape the Internet to achieve this vision of information society in a more socially and politically inclusive way. While IGF was created as a space where dialogue and discussions would take place, there was recognized to be a gap in actual public policy-making. As we know, in the last phases of WSIS, there were no decisions about what kind of processes should be, and therefore a bag was left called “enhanced cooperation,” to see what can be done in this space in the future. So the least we can agree to is that we would call those things as enhanced cooperation which fulfill the purposes for which the term came into existence, which is to do global public policy in a legitimate and participative manner. So I would put these three as the criteria to judge whether something is enhanced cooperation or not.

Another thing which the Tunis documents did is to make a distinction between technical policy and public policy. There are a lot of paragraphs which say technical coordination is different from public policy. And I think that was important, because we are dealing with a techno-social or techno-political space, and the distinction, though not always very precise, is still important to make. And therefore we should also recognize that enhanced cooperation is not in the technical policy space but in the public policy space.

So whatever processes we may be able to call as enhanced cooperation should be in this space and address the goals which I just described. I will now briefly touch upon what may not be enhanced cooperation, but which may still be very good things happening around us. Merely meeting, enhanced exchange of business cards, enhanced exchange of information – until they have a clear impact on public policy outcomes, I would hesitate to call that enhanced cooperation. It may meet the requirements of English language but it does not meet the requirements of what was meant by this term in the Tunis documents. Second, cooperation among bodies which clearly profess a technical mandate cannot, by definition be enhanced cooperation. These are bodies who clearly say that they have only a technical mandate. In fact, ICANN, in their response to the inquiry from the UNDESA about their progress report on enhanced cooperation, says they are a technical body. Well, a technical body does not make public policy. A technical body itself cannot be doing enhanced cooperation.

Paragraph 71, which talks about enhanced cooperation, is clear about two layers of enhanced cooperation. It talks about a set of processes that would make public policy, and then it exhorts certain institutions to create the conditions for making that public policy. Creation of conditions is not doing the act, and all the changes, which some of the technical coordinating bodies may be going through, is a very good sign towards making those conditions for doing the act which we said was the purpose of enhanced cooperation. I think actually there have been a lot of changes within ICANN, RIRs and other technical coordination bodies. And I think much of it is from an impact of the WSIS. And that actually shows how public policy makes a positive impact on the technical coordination layer.

These changes are welcome. They are creating a condition whereby we can move forward. But the precise set of acts which could constitute enhanced cooperation is still not clear. And here, going back to the original mandate of creating a people-centric, development- oriented information society, I must say that in the absence of policy self-regulation, serves dominant interests. It serves the interests of those who are already on the inside, and it does not serve the interests of disadvantaged sections. And we need proper public policy and we need to agree to this term being something which is in the direction of creating public interest policies in IG space. And probably that will give us some basis to go forward.

I have a last comment. There were two processes which are in the direction of enhanced cooperation by my definition. One, GAC, the Governmental Advisory Committee in ICANN, is a key process to an enhanced cooperation. I think it does fulfill two parts of the three conditions which I put forward. It is a public policy

process. It's global. But it's not legitimate. It's largely ad hoc. The Brazilian representative talked about some countries being there, others not being there. And we should recognize that Internet and Information Society represents a transnational phenomenon where new constituencies have come up and the global public interest is not only represented by a collection of governments. And therefore, I don't consider that also an adequate process. And second, Ambassador Beard pointed to the OECD countries. Yes, that also fulfills the two conditions. It's public policy. It's regional, but impact is global, and that's a problem. And impact is global but is not representative of the global constituencies.

BYRON HOLLAND:

The majority of my career has been spent in the private sector, where the Internet was integral to the business model, fundamentally the platform upon which the business conducted itself. So today, I am going to take a little bit more of a street-level view of what I understand enhanced cooperation to be about.

I fully appreciate the need for a governance structure of the Internet that is adaptable, inclusive and continually evolving within this rapidly changing environment. A secure and stable Internet infrastructure is essential to our economy, to our security and the way that we live in the developed world. But it is also critical for the developing world if they are ever going to be able to bridge the gap and be fully integrated into the global economy. The nature of the Internet means that there are many challenges whose solutions require global coordination. But just as important, they need national and regional implementation for widely varying contexts. The way to do this is through enhanced cooperation from multiple stakeholders. Whether they are government, private sector companies or others, emerging and/or developed nations, all must be taken into account in the Internet's evolution.

How do we do this? As stakeholders, we have an understanding of the shared challenges and opportunities of the Internet. We must have a forum where all relevant stakeholders are represented with equal voice. And a framework that encourages and facilitates constructive, consensus-building dialogue, from the bottom up, not the top down. This is one of the key distinguishing features of how the Internet manages itself, versus older, more traditional structures. How we approach enhanced cooperation is not simply an issue of security or stability. It is an issue of how this critical resource is managed overall.

Moving forward, I think that the current model, though certainly not perfect and a continuous work in progress, has performed quite well. A new separate intergovernmental process is not required, in my view. The governance of the Internet is a cooperative and collaborative effort amongst all stakeholders, including, but not limited to, the private sector, governmental, technical and NGO organizations. It is the combination of their strengths which has enabled us to get to where we are today with more than a billion people online. It has proven itself to be adaptable and able to continuously improve based on the changing needs of multiple stakeholders. The Internet model was robust and inclusive enough to

include this very forum, the IGF, within its multistakeholder environment that is the Internet community. I think the very inclusion of the important work that the IGF is doing is, in point of fact, a testament to the strength of the current structure and its ability to adapt and be flexible with changing times.

RAUL ECHEBERRIA:

Being the last speaker in the panel, there are not too many things to say. But let me share with you what is my interpretation about enhanced cooperation.

I had the opportunity to participate in the negotiations in Tunis. When we arrived in Tunis in 2005, we had a serious risk of failure of the summit because there were serious disagreements over Internet governance. There were majority views regarding the fact that the Internet governance should be improved. But there were two different visions. Some of us defended the idea that the improvement should be achieved through the evolution of the existing organizations while other people defended the idea that something new should be created, new mechanism basically, for giving more participation to the governments, international and intergovernmental organizations. And so it was very, very difficult to get an agreement, but the most important thing was the willingness of the governments to get an agreement in the last two days of negotiations before the summit. But creativity was needed in this for doing that. So I don't know if you realize that, but an agreement is basically a document that makes everybody equally happy and unhappy. So somebody proposed the notion of enhanced cooperation, which was very, very good, because it's a concept that gives the power that something should be done, but at the same time, avoided the use of words that could be more closely related with ideas of evolution or creation of things. So it was this ambiguity provided by this concept of enhanced cooperation that allowed the agreement in Tunis.

So what is, basically, enhanced cooperation? Enhanced cooperation is the challenge to improve the relationship between stakeholders and to allow the participation of all stakeholders in different organizations and different policy development processes. Basically, the agreement is that we should do that within the framework of the existing organizations, because there was no agreement to do anything new. So let me disagree with the previous speaker in the sense that I don't think that there are different views regarding what is enhanced cooperation. I think that the disagreements are more focused in if what we have achieved is enough or not. It applies to different organizations.

The process of WSIS and the Working Group on Internet Governance and IGF itself has been a very interesting experience of cooperation and collaboration among stakeholders. And when we look at the workshops that are being held in other rooms, most of the workshops are being organized by a collection of different stakeholders, governments working together with civil society organizations, private sector, intergovernmental organizations. It's very interesting. And I think that it has permitted us to work in a different level with other stakeholders. But we have gotten many other improvements. Many organizations have done many things.

I can speak about the LACNIC experience. In our region, the situation today compared with the situation in 2003, five years ago, is absolutely different. We have a very good relationship with governments, with civil society organizations. We participate in intergovernmental organizations in equal footing with governments. They have opened the door to us to participate, and participate even in negotiations. As also the governments have come to become more involved in LACNIC activities, which is something that probably five years ago nobody could have imagined. So I think that our organizations are basically better than what they were five years ago, because the process has made us take measures to improve the organizations.

But enhanced cooperation is also a living process. It's not something that could start at a given moment and finish in another time. We have to continue working on that, because not only the organizations and the processes are not perfect, but also the context is changing all the time. So the challenges that we have to face are different. So what is good at this moment probably is not good next year. So this is something that we have to continue working on. We realize that there have been a lot of problems in the regional level, also in the national level. Everton Lucero is here, and he represents Brazil. That is a country in which important results have been achieved and it is not the only country. There are other countries in which we can see very important results, too.

While we are happy with all the achievements that we see at the local level, at the regional level, we still have some problems with some international organizations. We have different views sometimes if the things that have been achieved are enough or not. For example, a few weeks ago, was held the Standardization Assembly of ITU, the WTSA, for short. Very important things were discussed there that are very closely related to things being done by other stakeholders. But there were no clear processes to influence the decision, to participate on an equal footing with the governments there. So some of the resolutions that were taken there probably are not seen by other stakeholders as going exactly in the direction of the enhanced cooperation. So we feel that some work is still necessary in many forums in order to improve the enhanced cooperation. But the results achieved until now are really very remarkable.

Discussion

EMILY TAYLOR:

So I'm now going to throw it open to the floor.

FROM THE FLOOR:

I'm going to be speaking from the standpoint of my role in the Generic Names Supporting Organization Council, because we are embarking on a process to make some significant improvements in our policy development process. I've heard throughout this week that there's a lot of frustration in terms of the role of

governments in ICANN. My observation is that we in the GNSO have, for the last couple of years, been trying very hard to get government participation in our policy development processes. But we have been very unsuccessful. So what I'd like to challenge you with is to help us understand how we can better do that. We are embarking on a process of GNSO improvements, including the development of a working group model that will be open to all, without restriction. And that includes governments. So, please help us understand how we can accomplish that. And I challenge government representatives to get involved in the working teams that we will be initiating shortly to develop the working group model in a very open way to include governments.

FROM THE FLOOR:

I'm a British Member of Parliament. There are four of us here, and I think that an important indication of the way that MPs should get involved more in this process. And I've certainly learned a lot. This is my first IGF. I wasn't at Tunis. If I had been, I think I'd have been a bit confused about this concept of enhanced cooperation, because I've heard different versions of it from the panel. Perhaps that might have been deliberate. But the fact is that, as a politician, when I hear a couple of words like "enhanced cooperation," my instinct is to say, "Ah, somebody is trying to restrain something, to institutionalize it, to grab back influence." And the reality is that while we're talking about it, the Internet is growing, it's expanding, it's penetrating, its technology is changing. We're moving into new fields of Web 2.0. And people are using it in different ways.

So the message which I'd like the panel to address is that if enhanced cooperation is an attempt to institutionalize the Internet, then you're wasting your time. If it is an attempt to improve the way that standards, spectrum, new satellite technologies, can improve access and diversity and interconnection, then that's great. But the best way of trying to use what otherwise is a very positive medium to eliminate those things that destroy trust, like child pornography, is not by legislation. You'll be behind the curve. What you have to do is cooperate between various groups that have an interest in the particular area. And best practice is the way forward for that. So can we have a bit more relaxation from the panel, a bit more understanding that, don't try and grab control of something that's anarchic. We politicians have long learned that trying to legislate for change is more likely to lead to the wrong solutions.

EMILY TAYLOR:

Before moving to the next person, can I just ask for some panel reaction to that?

EVERTON LUCERO:

I think that this debate is all about representation and legitimacy in decision-making.

The Internet started being managed on a personal basis. Jon Postel knew the technicians, the people involved, distributed some attributions. But the Internet was small at that time. It was restricted to universities. And it evolved so fast, incredibly

fast, that nobody could at that time imagine. And the situation that we have now is that we have 1.3 or 1.5 billion people accessing the Internet on a daily basis. And we are expecting another one billion or more in the next few years. So the structures to take decisions that will affect the uses of the Internet and the users, need, accordingly, to progress. And I entirely agree with the idea of cooperation with all interested parties. That's why I mentioned in the beginning of my speech as an example of a national-level arrangement that is valid is the one that we reached involving the Brazilian federal Senate, Google, a private company, SaferNet, an NGO, the law enforcement in Brazil, and the federal police to fight child pornography.

This is a concrete example that it is possible to mobilize all those interested parties when there is a need, a concrete need, to address a problem that is required by society. But to get there, we needed to have a federal commission of inquiry in the federal Senate. And those of you who were here yesterday heard from Senator Magna Malta, the Chairman of the commission, that he had to get close to extreme measures to get those involved into an agreement. Finally, he managed to do that, and we have something that is perhaps unique, because in a democratic society, we managed to coordinate with all those interested parties to fight a concrete problem.

Now, as for the reference to the GNSO, I'd like to remind you that governments – and this is a position that my government fully shares – governments are not supposed to manage the Internet on a day-to-day basis routinely. There are roles. And the role of government is to coordinate public policy issues or issues that have impact on public policy. Because if governments do not do that, who else would? And to do that effectively, governments need to do it on equal footing and on a global scale, not only a few. Because if it is concentrated, we will not take into consideration the legitimate concerns of the developing world. That is where precisely the Internet is growing more and will grow even more in the coming years.

FROM THE FLOOR:

We have two distinct concepts of enhanced cooperation up here. The one that I understood was articulated by Mr. Lucero and to some extent by Parminder Singh, saying, to put it in a concrete context, that enhanced cooperation was trying to solve the problem of governmental role in Internet policy-making. And Mr. Lucero proposed a specific principle which I thought was very interesting, and I'd like to hear Mr. Beard's and Mr. Singh's reaction to it. And that was, if governments are not involved, such as in IETF or the NRO, that's fine. But if you have an international organization which only one government or a select group of governments is involved, that that's a problem, that's something that enhanced cooperation should be trying to fix.

RICHARD BEAIRD:

If we have learned anything as a result of the WSIS process and our experience since 2005, it's that we're dealing with a much more complex problem than was

articulated in 2003 as a one-country problem. What we're talking about, as the 39 ministers that met in Seoul understood, is an Internet economy, which is a much broader concept than we had previously, and is certainly much broader than simply talking about domain names. The domain name system is a facilitator, a tool within that economy. Governments are engaged in this process at every level. Everton has given us some excellent examples of where governments are involved. Let me give you one more point to add to this, which is that governments are involved at every level of the Internet because we now understand it to be an Internet economy.

Further, if there is one thing we also learned from the WSIS process, it's e-government. It's how the Internet, used by governments – and, by the way, governments by all studies are the early adopters of applications and uses of the Internet – is making possible services that had not been made possible before, prior to the Internet. And that governments, when they came together at the highest levels, said this is probably the most important thing for us to talk about. And I think that's the point that needs to be made over and over again in discussions, which happen at fora such as the IGF which may be rather focused, is that in the world outside, in every region of the world, governments are engaged. And that at every level of society, governments, civil society and the private sector, they are all engaged, and they will find their own level of engagement depending upon their cultural and political context. So my response is that be more positive and be more observant of what, in fact, has happened, and understand that we are all now a part of the Internet economy.

EMILY TAYLOR:

I would like to take this time now to have the thoughts of our Chair. Mr. Raju, Dick mentioned the world outside. Perhaps, please, you can tell us how does this debate look to the world outside our quite small circle here?

RAMLINGA RAJU:

I am quite proud to be part of this distinguished panel, and I must also admit there is very little that I can add to what has already been stated. I would like, as a representative of business and as a person coming from the services industry, to offer some comments about what we are seeing in the business world vis-a-vis the Internet.

For a services company like Satyam, which has about 52,000 people providing services globally, what we find is that the influence of knowledge and of information is enormously growing in creating value. And that is acting as a great equalizer. And some of the things that we observe arising out of the global economic meltdown and also some of the acts that we have seen take place around security only recently indicate that we are living in a highly interconnected world.

We are sitting on a great asset, which is the Internet. And that has also put a collective responsibility on all of us to manage this asset well, because this is an

asset that can eliminate poverty very quickly, address issues around education, health and a host of other things. It doesn't take 40 or 50 years for the bottom-of-the-pyramid countries to address some of the most fundamental issues.

So I was quite fascinated to hear many things coming from a multi-dimensional understanding of managing this complex asset called the Internet. There were financial dimensions addressed here, ownership issues that got discussed, human resource aspects, technological ones, geographical issues, issues around processes and protocols. Security is going to play an enormously important role. Issues around how we mitigate risk. How do we address issues as more abilities come in to play a very important role? Where are stakeholders, whether it is at the people level or governmental level or business-to-business level got, in a way, addressed and discussed.

I am sure this collective attempt to bring greater focus to manage this asset in a cooperative fashion will yield significant results as we go forward. As a country, India is recognizing that this is a road, in one sense, for it to get more effectively connected with the rest of the world. And in that sense, today the boundaries have become much thinner. And we are very proud in India, and particularly in Hyderabad, to have an opportunity to host a conference of this kind.

EMILY TAYLOR:

Perhaps it's worth noting that while we were all busy arguing about enhanced cooperation, Mr. Raju was building a business with 52,000 employees and a turnover of over \$2 billion. Perhaps there's a lesson there.

I think what we have heard from the panel is that the Tunis Agenda arose out of a clash of visions. And it's not surprising that in the closing moments of those negotiations, when a compromise was reached, it was only agreed to because all of the different actors who brought to the table their different visions could see something for themselves in it. And perhaps it's no surprise that we continue to express those different visions as time moves on. Somebody once said that an Internet year is like a dog year. Well, I think that several speakers have highlighted how time has moved on and how quickly and rapidly the Internet has developed in the intervening years. So perhaps these are thoughts that we can bring into our discussions this afternoon, how we take those different visions and try to seek common ground.

I think every speaker has highlighted that in different sectors there has been progress, which is welcomed. Whether that's in Brazil through their national processes or, as Raúl mentioned, in his organization just becoming better and more connected with different stakeholders. Let's hold onto those positives, those areas where there is convergence, and let's try to understand each other's different perspectives as we move forward with the debate.

Open Dialogue on Managing Critical Internet Resources

Chair: Mr. Madhusudan Mysore, Chief of Customer Care Operations, Tata Communications

Co-moderators:

- Ms. Jeannette Hoffman, Senior Researcher, London School of Economics and Political Science (LSE)/Social Science Research Center Berlin
- Mr. Chris Disspain, Chief Executive Officer, AU Registry; Chair, Council of Country Code Names Supporting Organization (ccNSO)

Extract from the Transcript of Proceedings

Introductory Remarks

MADHUSUDAN MYSORE:

The main focus of today's discussion will be on managing the Internet resources, which is a very, very wide subject which includes the present network, how does it transform to future technologies, how does it touch the mobile revolution, how do we migrate from existing IPv4 technologies to IPv6, and how, as an Internet family, all of us here today can make a difference starting from service providers to policymakers to governments, to vendors, to system integrators. These are the different aspects which we will be touching upon. I would request Jeanette and Chris to take this forward.

CHRIS DISSPAIN:

I'm going to quickly run through the logistics of this afternoon. We're going to start with the two main topics that flow down from this morning. First of all, we're going to talk about IPv4/IPv6. And then we're going to move on and talk about enhanced cooperation.

Jeanette is going to take the first session on IPv4/IPv6.

The Transition from IPv4 to IPv6

JEANETTE HOFMANN:

We start with a report from this morning's session. The moderator from this morning, Ms. Bernadette Lewis, will give a summary of the outcome from this morning's session.

BERNADETTE LEWIS:

The policies that control the allocation and management of numbers within the Regional Internet Registries are developed through an open, bottom-up process that engages the entire Internet community. This is a self-regulating process. Given the present rate of depletion of IPv4 address space, it is projected that the exhaust will take place somewhere around 2011. There's no need to impose a deadline to forestall the inevitable, because the market is dictating the IPv6 deployment.

IPv6 is really a continuation of what exists today in IPv4. Most importantly, it will provide additional addresses. It perhaps may impact on some of the current technical processes. But what is certain is that IPv4 and IPv6 will coexist well into the future. Every IP-based product will be affected. IPv6 equipment is on the market, and vendors are supporting and migrating applications to IPv6. But even though IPv6 is available for deployment and vendors are well-placed to support operators in the migration of their networks, operators have been slow on the uptake of IPv6. And this is perhaps because they face a number of challenges.

For most, there's no obvious commercial driver for network operators to move to IPv6. There's no revenue associated with the migration. There's no initial customer demand. And they perceive that there's insufficient vendor support, or vendors are even charging for IPv6 support. And, of course, gaining operational experience is a learning curve for configuring your networks and maintaining both protocols in the dual-protocol environment. But operators do recognize that the time for migrating is now. And this is happening incrementally. They have started with IPv6 in the core. And there will be the need for addressing the hardware and software issues in their customer premise equipment. And there are costs associated with the migration relating to hardware and software, training and actual man hours for doing the conversion.

The panel also noted that it is very clear that there is a great need for private and the public sectors and civil society to be involved in the process. It is a shared responsibility and one that requires promotion and enabling of a smooth transition from IPv4 dominance to an environment where IPv6 becomes dominant. There's a clear case for multistakeholder participation, and we had the example that Japan gave of the establishment of a national taskforce. So that was a useful model for going forward – taskforces on a national basis to ensure the smooth transition and standardized mechanisms for the coexistence of IPv4 and IPv6.

There's a tremendous need for public awareness and education. IPv6 needs to be highlighted on national agendas of all countries. And it will be useful if the regions could harmonize their approaches, or harmonized approaches across regions should be adopted. It will be useful and helpful if, as part of the education process, for case studies to be made available and published, for example, on the IGF Web site, and confidence-building measures to be highlighted to build the confidence of the citizens so that they are comfortable with the migration. How we engage the citizens, how we engage stakeholders, is important. Perhaps citizens should be encouraged, for example, to view an IP address as an integral part of their identity.

In this emergent environment, the role of Regional Internet Registries is going to be changing. The scarcity of IPv4 is going to demand that the RIRs look at and develop policies for things like methodology for the transfer of IP address space, reclaiming and getting control of unused address space, security and management of this new IPv6 addresses and handling the emergence of possibly secondary markets.

JEANETTE HOFMANN:

You touched upon quite a lot of issues that I would like us to look at closer. Perhaps we should start with looking a bit at this market that we all expect to drive the transition to IPv6. One of the questions that we see asked again and again is who should be or who could be the driver for the adoption of IPv6. Perhaps I could ask some experts from the business community to give their view on this question.

FROM THE FLOOR:

Good afternoon. I'm from Sify Technologies. We are an Internet and network services company in India. We are already IPv6 capable, and we became IPv6 capable about two and a half years ago. We did that because we believed as a collective responsibility that we all move forward as companies that are involved in this space. And that we educate our customers as well, both enterprise and consumer, as to why it is necessary to move to IPv6. I must say also that the government of India has been encouraging network services companies in India to migrate. In fact, we had a dialogue with them in 2006 at which point we migrated to IPv6. So it's a dual responsibility. I think both governments and service providers should work towards this transfer towards IPv6.

CHRIS DISSPAIN:

What would you see the role of governments being in that particular aspect?

FROM THE FLOOR:

One is to have a dialogue with industry as to the importance of this going forward, which is what happened in India. Two is to educate, maybe create awareness of IPv6 and its importance, starting with government departments that provide e-governance and so on. They could take the lead and everybody else would follow. If all services, all Web sites became IPv6 capable and announcements were made to this effect, there would be widespread awareness and people would say, okay, this is important. We have all got to facilitate.

JEANETTE HOFMANN:

What is the role of the vendors with regard to the transition?

FROM THE FLOOR:

I'm from Nokia Siemens Networks. Vendors also share a responsibility in the transition to IPv6. It's clear that the equipment has to be capable, and of course we have noticed our responsibility while creating the technology. And of course operators and also academics and governments have been included in that. So I think this is a shared responsibility where everybody now starts to understand and take that responsibility.

JEANETTE HOFMANN:

But shared responsibility sounds a bit vague to me, because this shared responsibility exists for about 10 years now, and not much has happened when you look at the statistics. Is somebody in charge?

FROM THE FLOOR:

That's a very good question. You can always say that when there is shared responsibility, there is no responsibility. However, I think that there are many layers in this, and people are responsible for their own topic. The different players are responsible for their own areas, so the shared responsibility comes from that. Not that they are necessarily shared responsibilities for all the topics. The vendors are responsible for updating their equipment. The operators are responsible to upgrading the networks. And the governments are responsible for enabling an environment where this can flourish.

FROM THE FLOOR:

I'm from JPNIC, which is one of the national Internet registry for the IP address management. As Mr. Satoru Yanagishima introduced in his speech in the morning session, the Japanese industry set up a taskforce on the IPv4 address exhaustion. That's a taskforce by around 20 associations around the Internet industry and telecommunication industry. The taskforce is encouraging stakeholders to get prepared for the IPv4 address exhaustion because we are now running out of the IPv4 address in around 2011. Then the operators need to implement a network in 2010. Then procurement should be done in 2009. Then planning should be done in this year.

This is a quite tight schedule, but the taskforce is aiming at encouraging stakeholders to set up test beds, to train and make training material for the various operators or stakeholders. It is also asking the certificate program providers to include IPv6 items in their certificate examinations and trying very hard to raise awareness, including interviewing stakeholders to identify problems in the deployment of IPv6.

We don't think the IPv6 problem is a technical problem, but a business or social problem. We focus on assisting IPv6 deployment planning in each individual operator, to help management of the operator to decide investment on IPv6.

JEANETTE HOFMANN:

The point about the test bed brings me to a question raised by the director of the African e-Development Resource Center. He asks whether there are any risks involved in the transition from IPv4 to IPv6.

FROM THE FLOOR:

I think one thing that we should remember from this morning's session is that it's not so much a transition from IPv4 to IPv6. We are still very much into a situation where we are still going to use IPv4. Before the year 2000, every network in the world actually had more than one protocol on it. So it's only the last few years when we have been using only one, which is IPv4. So now, when we are going to use two protocols again, IPv4 and IPv6, that's actually not something weird. We have been doing this for years. So what people are to remember is that it's very easy to run them because IPv6 is more or less accepted the same as IPv4, and people have been deploying this for many, many years.

CHRIS DISSPAIN:

Is there anything inherently less secure about having effectively IP address to IP address rather than going through what currently happens, going through NATs?

FROM THE FLOOR:

The answer is no. The reason why people believe there is a connection between security and the ability to have end-to-end connectivity is that most of the firewalls we have today, which are boxes where you implement a policy of what nodes can communicate with what nodes, not only implement that policy but are also doing address translation, which is called NAT, at the same time. Because of that, people believe that it is the NAT functionality which is what makes things secure, when in reality, it is the policy that you have implemented and the filtering that creates the security. So this is one of the larger myths that exists, that you need to have address translation to get security, when in reality you need the policy and the ability to enforce the policy to get the security.

Now, what is important to remember, though, is that just because we have been running only one protocol, IPv4, for quite some time, all the firewalls we have today where we implement these policies are today configured only for policy for one protocol, IPv4. So if you turn on IPv6, then you need to ensure that these policy enforcement boxes can handle both IPv6 and IPv4 for the policy enforcement, not only for the packet forwarding.

JEANETTE HOFMANN:

Thank you. The Director, Technology and Licensing of Uganda Communications Commission, asks what technical and economic challenges have so far been experienced in upgrading IPv4 equipment to IPv6. Perhaps somebody from a company who has experience could answer that question.

FROM THE FLOOR:

I'm from a telecom company in Switzerland. Today we are running IPv4 and IPv6 together and they are both interoperable. The methodology is there. It's only a matter of deployment. The issue of the shared responsibility is regarding content distribution. There are not two Internets, there is only one Internet at a given time. IPv6, IPv4 are only protocols. There's only one Internet as a content distribution network. It does not change from today, tomorrow and day after. People normally don't talk about the content distribution systems or content providers, that are Web servers basically. That's where the most emphasis should be given. Government should take the first action to make their network IPv6 compatible, their Web servers providing content on IPv6. Then everything will follow.

JEANETTE HOFMANN:

I find this quite surprising because from what I have heard, all people who try to run IPv6 come across technical bits missing here and there. And the other argument we hear is that there is no business case for adopting IPv6. So either there is a challenge or there is no challenge. So would anybody else like to comment on this in the room?

FROM THE FLOOR:

I think we have all the technology we need. There might be, from the architecture point of view, some vendors who are still to implement IPv6 software in their products. But there is nothing in the technology sense missing. And I think most people who have deployed this know it is actually straightforward. It will take some planning, but once you have done the planning, once you have done your homework, it's a very easy thing to do.

JEANETTE HOFMANN:

So would you then say that this argument, there is no business case for adopting IPv6, that this is all nonsense?

FROM THE FLOOR:

There is no business case for adopting IPv6 except that we are running out of IPv4 space. In two or three years there will be no IPv4 space available. That is the only business case there is.

JEANETTE HOFMANN:

Anybody else wants to comment on the specific point?

FROM THE FLOOR:

To follow on the presentation of my government and taskforce, one of the areas they identified is not all the ISPs, at least in Japan, are ready to move. But some ISPs whose customers are more corporate are very aware that they eventually

need to provide new services using the new addresses if the IPv4 address will exhaust. But that is posing some interesting regulatory and business challenges which haven't been really covered in this morning.

I don't think we should only consider the IPv4/IPv6 issue within its own silo. In three to five years, some other trends are there. One such example is the case of NGN or next generation networks. In Japan, the telco has already introduced the NGN as a commercial service and also an alternative to the fiber to the home services, which already have 12 million users. The consequence is that because the telco decided to use IPv6 as default NGN services, there are ISPs who have been using IPv4 are considering the IPv6. The question of which IPv6 address do the users use is posing very serious technical, commercial and regulatory issues. In an ideal situation for the users, we only use the IP addresses given from the telco. But that eventually gives no space for ISP businesses at all to live. So there's very intense negotiations underway right now in Japan how to really make the IPv6 solution where there is no international technical standard at all. So these are kind of the new areas we may need to face.

FROM THE FLOOR:

The original question was are there any risks involved in the transition. And we have heard from two technical experts who have said, in effect, the technology works. There are no risks. I would like to point out that it's not simply a matter of the technology working the way it's expected to. People are putting off the decision. So let's talk about a specific risk. Is there a risk, when people stampede to adopt it at the last minute, is there a possibility that something will go wrong?

FROM THE FLOOR:

So let me explain what I mean with no risk. There is always a risk when you are deploying new things. So when I said no risk, I implied no additional risks from whatever risks you always have when you deploy something new. So where I completely agree is that the only business case is that we will one day not be able to get more IPv4 addresses. So we need to start to deploy IPv6 and train early so we don't have to deploy it when being in panic. Because that is when we always have a problem, when we start using something we have not trained.

FROM THE FLOOR:

The comments I will make now are on behalf of the European Union, as France is the presidency of the European Union. It's about the policy dimension.

The first thing is to try to avoid to talk about transition anymore. We need to repeat over and over again that the coexistence of the two protocols will last for a long time. And that what we need is to move towards compatibility between IPv6 and IPv4. If the IGF could spread this message, just like the message is being spread in a certain way in the discussions within ICANN, that would make a great progress. Because as long as we keep talking about transition, and as long as there is no first-mover advantage for any actor, and somebody also told me that there seems to

be no last-mover disadvantage either, we're in the worst situation for having a coordinated move. And the challenge and the benefit of an IGF is precisely to bring people into a common awareness and avoid what economists call the prisoner's dilemma type of situation, whereby everybody is waiting or taking an individual decision that seems to be perfectly valid but, in the long term, puts everybody in a more difficult situation to make the transition.

Now, the second point is on the scarcity of IPv4 addresses. If people have the feeling that there are no fair and equitable allocation mechanisms, both for the remaining addresses and for the already-allocated addresses, if a black market evolves, for instance, or things are not transparent enough, then the environment will become even harder to handle. So the encouragement is to discuss, as much as possible, what are the allocation policies for the remaining IPv4 addresses and the already allocated for developing countries, and that was the point, that they shouldn't be disadvantaged.

FROM THE FLOOR:

On most of the RIR public policy discussion mailing lists, the issue has been raised of what to do with the remaining pool. Following that, recently all the RIRs approved a global policy on how to distribute the remaining /8 equitably among the five RIRs. But there are other questions which are policy-related on how the remaining pools will be used to facilitate the transition, in order to allow newcomers to be able to have IPv4 addresses while implementing IPv6. Those are policies which need to be defined and discussed by the community, by operators. And we need more participation from the community in the reflection on how to use those remaining pool, which will be allocated at the end.

JEANETTE HOFMANN:

There is one aspect regarding the market for IPv6 that I would like to discuss, and that concerns the role of the end user. I learned only a few months ago that those who get a router from the Internet service provider today for broadband still get routers that understand IPv4 only. And that I found quite surprising, because we hear all these companies saying, "Yes, shared responsibility, and what we really need we have already started." But when it comes to end users, they still sell boxes from yesterday. So I would like to know what role end users in this business actually play. Does it not matter whether they have IPv4-only routers?

FROM THE FLOOR:

You asked earlier that who is in charge. And I think the users are in charge of whether operators deploy IPv6 or not. If the users ask for it, more people are going to use it.

Going back to what I was here earlier, I don't think we need more test beds anymore. As someone who has actually deployed a v6 network and operates it, it's the test beds that actually keep v6 as an experimental technology for most

operators. And the more test beds we have, the more problems we see. So that needs no more test beds, but, actually, people need to go and do it.

FROM THE FLOOR:

I'd like to follow up on two things. Yes, no more test beds, because we need to get this in production, and the more production we get, the more we understand the problems and can identify them. Yes, we will need DSL modems. It's not legacy equipment being sold. It's just that there is no product available on the market, or very little, that supports IPv6. Rumor has it that that will happen very soon.

I wanted to come back to the business case and to the question about what's the driver for this. I'd like to do a small straw poll. How many of you here have as your service provider an organization that has a transition plan? Those of you who don't are the reason why there's no business case. You should go home and ask your service provider or your IT department, ask, "Where is my v6 address space? Why are we the last people to migrate? Do we really want to be in that seat?"

FROM THE FLOOR:

On the risk associated with switching to IPv6 as a provider, the business risk is somewhere between 0 and 1. The risk of not switching to IPv6, business risk, is 1. You will go out of business when you can no longer provide service to your customers. So that's really not an issue. The issue is when. The difference between IPv4 and IPv6 is exactly one. There is an additional 96 bits of address space. That's it. The problem solved by IPv6 is exactly one, depletion of the 32-bit IPv4 address space. So if you're running out of V4, you have to switch to V6. If it's going to take you a year to convert, you need to start now. If you're more like a typical service provider network and it's going to take you four years to convert, you need to have started three years ago. It's pretty simple.

FROM THE FLOOR:

I would like to address a couple of points here. First of all, about the business case, going out of v4 addresses is the business case. For us as a vendor, we see there is a demand on IPv6-enabled equipment. It might not be there yet in volumes, but the demand is growing all the time.

JEANETTE HOFMANN:

As a vendor, do you see regional differences in the sort of readiness for switching to deploying IPv6? Is there a difference, for example, between Asia and the US and Europe and Latin America?

FROM THE FLOOR:

There was a notion a couple of years ago that Asia would move first. And there were some people in Asia, for instance, China and Japan, who started to implement v6 early on and have gotten good experience on that. Now let's say that most of the

regions are more or less on the same level but not including necessarily the developing countries. The emerging markets tend to be a little bit behind and not as interested at the moment, because they might be struggling with some other issues. But, in general, the interest level seems to be the same, and people are moving more or less at the same time.

FROM THE FLOOR:

I think if there is a risk, it's not planning and rushing into the transition. You said a few minutes ago about people having problems here and there, pieces missing, et cetera. Generally, that is due to bad planning, bad assessment of what the network is. So there is a step in the transition to know exactly the elements that need to be assessed first before starting. So the planning aspect is very critical. And the support from the government or the lead from the government to push local operators to start planning earlier is very important. I will also point out policy developed in various RIR regions to allow newcomers to have at least IPv4 address, so that during the cohabitation period, they are able to be connected to the Internet. Those are critical policies. And those are where we need to be more proactive, government, the end user, operators, to define and start looking at how things will be during that period.

JEANETTE HOFMANN:

I would now like to address the problem of the scarcity of IPv4 addresses. I was asked earlier to address one question, and that is whether a market for IPv4 addresses could lead to a delay in the deployment of IPv6. Many people are concerned about that, especially if a market would bring up lots of the legacy space that is not used right now. For those who don't know, about a third of the IPv4 address space is so-called legacy space, and only a small portion of that address space is actually used. So would anybody like to comment on that question?

FROM THE FLOOR:

There are two or three things that are going to take place in the interim before the scarcity finally sets in. And the first thing is that when any resource starts to get depleted, the use of that resource will become much more efficient. People will start looking in their currently allocated IPs for whether they have some allocations that have slipped through the cracks – it belonged to a customer but it's been disconnected and never reclaimed. With a lot of ISPs around the world, I know for a fact that they maintain their IP allocation in Excel sheets or even on slips of paper in files, and things can very easily slip through the cracks. The second thing that will happen is people try to acquire IP addresses using fraudulent means or on the black market. The third thing that will happen is that there will be increased efforts to make people who own legacy address space to give it up or. This may prolong the option for a few years. I have seen estimates that say 15 years for v4 to run out completely.

FROM THE FLOOR:

The question is, will a transfer market for IPv4 addresses slow down the migration to IPv6? The answer to that is not a simple yes or no. The answer depends on how quickly you think people can transition to IPv6. The transfer market could, indeed, prolong the transition. But it may be true that we need to prolong the transition, and that if we don't, we will get into serious trouble. Let me give you a simple example. And this is not the first mass standards migration we've gone through. One of the big ones we've gone through recently is digital broadcasting. Now, if you want to force everybody in your country to get a digital television, you could shut off analog TV and say, "Sorry, you can't get broadcasting." Any politician who did that would be in big trouble. And so we have set in motion extended plans for the digital TV transition. I would view an IPv4 transfer market as a necessary risk reduction mechanism that, if the transition takes longer than we expect and doesn't go as smoothly as we expect, we will be using the remaining resources more efficiently.

FROM THE FLOOR:

I'm from JPNIC. Answering your question, the transition for the IPv4 space doesn't help so much, because right now, the IPv4 address consumption rate is more than 10 /8s in a year. Even if we have transfer mechanisms, the supply of the secondhand IPv4 address space doesn't satisfy the demand of the IPv4 address space.

FROM THE FLOOR:

You said one-third of the IPv4 address space is legacy address space and it's not used. I don't remember from the top of my head which part is actually so-called legacy address space that was given to organizations and governments before the creation of IANA and the RIRs as they are now. But the thing is, much of that address space is not routed on the Internet. So, much more of it is most probably used than is seen in the Internet routing table, because they are private networks. I know, for instance, GMA has the GRX network that uses public address space in a private network. And I've heard of military networks doing that as well.

FROM THE FLOOR:

People have played this game a lot, where we try to speculate how much address space is out there and how that affects the case for a transfer market. And the point is, we don't know. There's good evidence to believe that there's massively inefficient utilization of large spaces of v4. But it could be wrong. I don't see how that affects the justification for having a transfer market. Because if you don't and you run into shortages, and a v6 transition doesn't go as smoothly as we think it is, you're going to be in trouble. Every time you have a scarce resource that is not priced, you run into shortages. Whether it's oil price controls in the '70s, rent controls in major cities, you will get shortages when you don't price resources that are scarce. So I just have trouble understanding the resistance to the transfer market idea. I think it's

simply an insurance mechanism that allows addresses to be used more efficiently in the short term as we make the transition.

JEANETTE HOFMANN:

I'm afraid Chris gets really restless here. So I need to hand over the microphone to Bernadette.

BERNADETTE LEWIS:

Thank you very much. I think the discussion this afternoon really drilled down into a lot of the discussion that we had this morning. And I'd like to start with some of the points that I think have been emphasized over the course of this morning and this afternoon.

The first is that this transition or migration period is one which requires a shared responsibility if we're going to have an orderly migration to the time when IPv6 is the dominant protocol in the environment. And it requires the governments, the operators, the vendors, the consumers, all of them, taking charge of their respective roles, and a certain coordinated approach to making sure that it happens and that the migration is orderly.

The second thing that stuck out in my mind was the whole discussion about the risks. And it came out very clearly that the technology works, so that the risks that we're talking about are really the risks associated with not moving forward with IPv6 deployment. And in order to minimize this risk, I think it's very important that your planning processes are very careful and take all of the issues into consideration. So planning is critical to the process for minimizing the risk.

The third area that I also wanted to just focus on briefly was the need for education and public awareness. This is fundamental to the whole process moving forward. And I think it also is a shared responsibility, that the government has a role to play in advising and informing and getting its citizens on board. I think the government must be one of the early adopters of IPv6 and using it in their own networks. And I think that in itself is a demonstration of its commitment, and it is an encouragement also for the business community and the private sector to move forward as well. It shows that the government is serious about this issue.

Finally, the whole issue of how we are going to approach the scarcity of the IPv4 addresses, there are a whole lot of addresses not used and not accounted for. But even if we dealt with those, the bottom line is that we have to begin this migration process. We should have started two years ago. It means that we are playing catch-up and everyone has to get on board now. There is no time for further delay.

Global, Regional and National Arrangements

CHRIS DISSPAIN:

We're going to move on now to a discussion on the second session that took place this morning, and we're going to start by asking the moderator from that session, Emily Taylor, to give us a brief synthesis of that session.

EMILY TAYLOR:

The expression "enhanced cooperation" was coined back in Tunis in 2005. Like any good compromise, it got agreement on the night because each actor could see a piece of what they wanted in the text. This has been termed "creative ambiguity." And that ambiguity was echoed in Haiyan Qian of UNDESA's point, that it was not at all clear what enhanced cooperation means. It is also illustrated in the way that our panel members created excerpts from the text of paragraph 69 to 71 of the Tunis Agenda to support their views.

Everton Lucero, from the government of Brazil, emphasized the phrase "governments, on an equal footing," from paragraph 69. And this supports the view that enhanced cooperation means a process involving governments. Dick Beard from the US Department of State quoted paragraph 71, which states "stakeholders in their respective roles" to support his point that Tunis created no new areas of competence for existing organizations. Parminder Singh, from civil society's IT for Change, differentiated between technical policy and public policy, emphasizing that only public policy issues, a quotation from the relevant section, are truly part of enhanced cooperation. Byron Holland and Raúl Echeberría, respectively from the nonprofit world of Internet naming and numbering, indicated their view that enhanced cooperation is not owned by governments or particular organizations, but involves all stakeholders as quickly as possible, a quotation from paragraph 71. This shows, I think, that it's easier to create ambiguity than it is to live with it. A couple of people have pointed out that this morning's statements at times felt like they were taking place in parallel universes. And this reminds me of the Pink Floyd song, *Comfortably Numb*. You know, "Your lips move, but I can't hear what you're saying."

What is clear is that there is no one clear shared vision of what enhanced cooperation means and in what organizations enhanced cooperation needs to take place. Everton felt that the ITU was relevant and ICANN especially relevant and expressed concerns about ICANN in this regard. Dick highlighted positive examples in the OECD and the ITU. Parminder expressed the view that the ITU, OECD, and ICANN were not relevant. Raúl said that enhanced cooperation should be understood as a living concept and said that he did not feel that all stakeholders within the ITU could, at the moment, participate on an equal footing.

Focusing on the positives, first of all, every speaker highlighted different reasons to be cheerful. For example, action to combat child abuse images in Brazil, the extended involvement in the recent OECD ministerial, improvements in the way that

IP address registries interact with relevant stakeholders. Secondly, I think we're getting to an understanding of the different positions and how they are all supported, to some extent, by the Tunis text. Most importantly, I think some of the heat has gone out of the discussions.

I'd like to return to Raúl's concept of enhanced cooperation as a living concept. It fits the fast-changing environment in which we operate, and, incidentally, to show it's my turn to quote from the Tunis Agenda, it is supported in the text, which requires us to be "responsive to innovation". So perhaps there is a role for the IGF in this context, as a nonthreatening environment for discussion, where we don't have to make decisions, we can talk, share practical experiences from different perspectives, and move to the point, perhaps, where we can listen to each other, moving from a disconnected series of statements to a shared conversation, no longer comfortably numb, perhaps, but invigorated by a true exchange of views.

CHRIS DISSPAIN:

I'd like the businesspeople and the non-business users in the audience to think about this. I've got my domain name. It works. Why do I care about enhanced cooperation? What does it mean for me? Why does it matter?

I know that Mr. Tang, from the government of China, wanted to speak. So why don't you go first?

FROM THE FLOOR:

First of all, I am asking, what are we trying to discuss here? What kind of problem are we trying to resolve? We have to be clear on this point. Otherwise, we're just talking here all day long, without knowing what we're doing. This is a waste of our time. We should, rather, identify the substantive issue we want to discuss and on this issue, people can express different views. It's good if we can reach a consensus. And if not, then in 2010, we should submit a report to the General Assembly which indicates that we failed to reach consensus on the issue, and we should have further discussions on the issue, maybe through different mechanisms and different forums, so that in the final analysis, we can resolve the problem. This is the whole point of our discussion in IGF. So we have to identify, in the first place, why we need to have a discussion here and what we're discussing.

In 2003, when the Geneva phase of WSIS was convened, the Chinese government raised a question concerning the organizations managing critical Internet resources, which apart from day-to-day operations are also in charge of updating the authoritative root server. This issue concerns the stability and security of global Internet, and people from different countries have different views on the management of this issue. Should it be left to one government or, rather, should it be managed by many countries? Or it should be done by intergovernmental organizations?

The 2003 summit discussed this issue, and consensus was not reached. Then a working group was established to discuss this issue and a report was produced.

The report made a clear point on this issue. By 2005, in the Tunis phase, we also had a discussion on the issue, without any conclusion. Then the Secretary-General of the UN authorized to establish a working group to discuss this issue. This is very clear. The focal point for IGF is to discuss if we need one government to manage these critical Internet resources or to do something else.

This is a very important issue. The question is, how can these kinds of resources be managed? This morning when we mentioned enhanced cooperation, we already had some discussion on this issue, which was very lively and active. This kind of opportunity should continue to be available. Let's see if we can reach consensus. If not, then, in the final analysis, the issue will be raised to the General Assembly to consider and make a decision on.

Another point, in IGF, we must make full use of this forum to remove misunderstandings. This morning, some panelists in their statements suggested an intergovernmental mechanism might affect the innovation and development of Internet – business circles tend to have this kind of misunderstanding concerning this issue. For the present, it's not that we don't have a government that manages the Internet, but, rather, it's one government that manages critical Internet issues. What we're advocating is that this mechanism should be changed. We should have many governments, or multistakeholders, to resolve the problem and replace the existing mechanism. This is what business and academic circles should work on. Here, in this IGF forum, we should have good communication, good exchange, so as to remove this kind of misunderstanding. And we should try to reach a consensus.

FROM THE FLOOR:

I'm a Member of Parliament from the UK. I think the remarks that have just been made should be taken very seriously by everybody as giving exactly the reason why we need to make the IGF process work. I think it's disappointing there aren't more Members of Parliament at this IGF. There are actually a larger number than there were at Rio last year, but we have still got a long way to go before we have a proper engagement of parliamentarians. And I think that's very important for the future.

My concern, listening to the way that this debate is going, is that last year I challenged all participants in the IGF to live up to their words, to walk the talk. I asked for a specific space on the IGF Web site for commitments, and I have made a number of commitments on behalf of team UK. I didn't speak as a minister or for government but on behalf of the UK team, but ministers have backed those commitments and we have reported back as promised during course of panels during this week. We have established the United Kingdom IGF so that we debate issues at a national level. And one of the big developments that I am really pleased about was the seminar this morning when we talked about the patterns at different national levels where people are doing work to bring together to this event. In other words, industry, parliamentarians, governments and civil society working at a national level in order that we come together with issues to be discussed at the international level.

My point in saying this is the challenge is not what people say in a discussion like this, but what we do in between to make sure that there is a cooperative approach, that we have business, we have governments, we have civil society, engaged in the future of something that is absolutely crucial and important to all of us. But I also asked, last year, can we increase the engagement of mainstream industry? I think that's important. We need people at a chief executive level in industries across the world, not necessarily to be here, but to realize that it is important to support the process in their own countries and to support the process here.

Finally, what about governmental engagements? Governments signed up to the IGF process during the course of the World Summit at Tunis. It's not enough for governments to sign up for it and then stand back and wait for it to fail. Governments need to support the process. That means they have to be involved with the other partners at their own national level. I'm pleased to say ours is, and some others are as well. But I think we have to challenge all governments, not simply to stand back and wait for the IGF process to fail, but say that working together is actually the best way to do things, and it's the only way to do things in the joined-up nature of Internet work. Cooperation, working together, is the only way to design a new form of governance. Falling back on the old forms of governance simply will not work.

FROM THE FLOOR:

I am President of the Scientific Council, also the Executive Council of the Luxembourg Institute, which works in the area of international affairs. I have two main points to make.

The first point supports what has been said by the parliamentary member from the UK. What he said, in fact, is that what we have been hearing in Hyderabad is not an inclusive process. I realize that the multi-actor stakeholder model functions because there are well identified entities. However, I do not believe that we should push this kind of thinking very far. Of course, there are registrars, there are users, there are governments. And everyone should contribute to this process. But if I take a sociological approach to our debate, I would say that some feel themselves more as owners of the process than others. We are all founding members here. There's no second-class representative here. And I believe that in all of these discussions about the Internet, whether here or in international meetings of ICANN, should have this sentiment of being included in the process and not being excluded from it.

Let us look at what is happening really today. In fact, every one of us represents many things. And because globalization is moving ahead very fast, we are also at the same time parents concerned with child pornography and the Internet. We are also parents who would like to educate our children very well. This is why we are interested in the educational side of the Internet. Both women and men are concerned by issues of safety and security in society. We are against violence and crime on the Internet. And we are also all citizens here, and we do realize how valuable the contributions of governments are when we talk about the formulation of public policy.

And this leads me to tell you something different than what was said by Parminder Singh. He said there are two areas, public policy and technical policies. Well, I think one of the more important realities of today is that we can no longer create such clear distinctions and create barriers. There is a part of these technical policies that, indeed, has implications for public policies, and vice versa. So to conclude on this very first point, I think that instead of using a red pencil and clearly mark the borders or borderlines between organizations, between communities, between developed or developing countries, I think that we should try to find joint solutions. And this is the most important contribution that is being expected from this forum on issues related to the Internet.

We are having a very animated discussion here on issues related to the MAG and the governing council of ICANN. And in light of this, I would like to focus on the role played by government. You have referred to the question of government as the central element in the system, the most important question that should be dealt with by the IGF. Well, the originality and the values that we are trying to put into place through multistakeholder dialogue by using this multi-actor system is because not everyone agrees with the fact that this system should be in the hands of governments.

You talked about one government, several governments. And I don't think that this is the real problem. The real problem is that governments should play a role, but the question is, what kind of role? Should it be a predominant role or should they work on an equal basis with other partners that will make the Internet available to all of us and to all the people in the world? The system that we are trying to establish, including ICANN, it is a very original idea. But everyone has to find his or her role. I would like to say that the work that we are carrying out here, and what I am trying to do in ICANN, especially in the President's Strategy Committee, is to take into account the opinions that have been expressed orally or in a written manner by people from across the world over a period of several months as part of open consultations.

We have posed very clear questions. Should this model be ruled by governments? The answer was no. However, and I do agree with you, the way in which the opinions of governments are taken into account and implemented by ICANN should be improved. There's no doubt about that. And this is why, as a member of the PSC, I contribute. And I would like to contribute to this process of clarification and to make more effective the contribution of governments in ICANN. ICANN is not the United Nations. It is a technical body. And as I just said, some technical functions may have broader implications, and the opposite is also true.

So on the GAC, the last thing that I would like to say, you will find in GAC countries that would like to actively participate in the work. But – and this is something that I am saying without any judgment – there are about 100 countries that are officially members of the GAC, and usually about 40 are present, and even fewer countries are really active in the work. And this does not simply depend on the methods of work of the GAC, but it actually depends on the will of states on what they want to do with this body.

FROM THE FLOOR:

I am from IT for Change. I thought Emily made a wonderful summing of this morning's talk when she said she spoke with a creative ambiguity that was there in the whole conceptualization of enhanced cooperation and how every actor saw in it their desires. I think that is true, but it is also true that the Declaration of Principles clearly laid down what we are all here for: a stable and inclusive Information Society. And the Tunis Agenda spoke about how easy was a process of global public policy making for the particular goal of inclusive society. And I think this is something that we cannot afford to forget.

So I was slightly disturbed when Chris, in his opening remark, said if I already have a domain name, do I care. And I think that is a problem with IGF, and that's why IT for Change and 94 other individuals and institutions wrote a letter to the IGF saying there is a big democratic deficit that we have in IGF, and that's why people who already have domain names or IP addresses are the people discussing issues here. The 6 billion people not connected to the Net are not here. And by saying "Internet for All" means the next billion for us, we are saying the last billion doesn't matter.

I come from India which has a very strong tradition of developmental economics. And right now we are in a project where we are setting up 100,000 public access points with public as well as private participation so Internet can reach everybody. And that comes through public policy and public investment. I think that's something that the global forum has to take note of. I am very happy with the remarks that the previous speakers have made, and I think that shows some kind of a frustration that many of us have with the whole IGF process. And I'm saying it positively, because if we ignore the frustration and we do business as usual, then we will fall prey to the remarks of those who already are questioning the validity and legitimacy of IGF as an institution itself. By taking note of these concerns, by establishing enhanced cooperation as a meaningful process, we can, indeed, hope to bring some meaning and life into IGF. We may, by doing that, make sure that IGF extends beyond 2010. But business as usual is going to be a very bad way to go about it.

CHRIS DISSPAIN:

Can you give me one thing, one thing, that we could do that would help with that?

FROM THE FLOOR:

The 2003 Geneva summit set up the WGIG, which had people from various stakeholder groups and came up with very innovative ideas on what the Internet governance could go about. I think IGF can't be a once-in-a-year event. That is a recipe for failure. I think IGF has to set up groups that can go into various issues, whether it is relating to cyber-security, whether it is relating to access, and actually look at what are the issues in place, what is the role of the market, what is available for public policy. Come out with documents. The WGIG report was an excellent report, a fantastic output. Come out with documents like that which will actually say for this particular issue, "We need ITU and ICANN and maybe UNDP to work on." Merely talking is not going to get us anywhere.

FROM THE FLOOR:

I would very briefly take the question you first posed about why should I care if my domain name works. I think what I said in the morning and what I will say now has something to do with democracy and democratic values.

My colleague from ICANN said that technical policy and public policy are mixed up. I know that they are mixed up. The line is not very clear, but we can't completely obfuscate the issue. They are two different things and that's why they are two different terms. And it is relevant to the fact of the matter because, depending on whether it's more of a technical policy or more of a public policy, we bring about a policy-making structure which is adequate to the issue at hand. If you are discussing how we can run a network, we would probably ask for technical expertise. If we are talking about an issue where people are differently affected, we need political processes. And that's called public policy. I think the discussion to that extent is very clear.

The problem is that the Internet, which was a technical infrastructure run by people who had technical expertise, are not happy to let it go now that it has become a very strong social-political force. People's interests are differently affected and that can only be sorted out by a political process. In the morning, the IPv6 session gave a very good example of how, when resources become scarce, then an issue which is technical could have a lot of political aspects of it, and the nature of governance around it may need to change.

FROM THE FLOOR:

I am the Vice-Chairman of the Governmental Advisory Committee. Because we believe in a multistakeholder model we want to work together with all the stakeholders to improve it. There is a deficiency in that model in what refers to the representation and legitimacy of governments, in particular, from the developing world. And we want to raise that issue and get to a common understanding on how to address it.

One of the items that are included as a benchmark against which ICANN's progress will be evaluated under the Joint Project Agreement is precisely the role of governments. And one of these items says that the ICANN board should engage with governments, and, in particular, with GAC, to elaborate further on how the interaction between the board and the GAC could be improved. We have seen in the past some improvements, I acknowledge that. But that has not been enough. And there hasn't been a consistent and dedicated study and interaction between the board and the GAC on that. One first step would be to have that.

FROM THE FLOOR:

On behalf of the International Chamber of Commerce and its initiative, Business Action to Support the Information Society, it would be useful to share a few thoughts from the business perspective on enhanced cooperation. It is fundamental that informed policy choices have the input of all stakeholders. That is one of the

benefits of the IGF. And what we have observed is that there has been a lot of progress on enhanced cooperation and communication among many of the organizations and stakeholders at both a national, regional and international level, between intergovernmental organizations, technical organizations, civil society organizations and business organizations. And we see this as a positive progress. We continue to work to bring more business experts into these discussions and are also heartened to see the number of national and regional dialogues and IGF-related activities that have grown up in the past year. This is progress. And this is enhancing cooperation in a way that will have an impact on policy choices and the information that all stakeholders need in order to make those choices.

FROM THE FLOOR:

I'm from Syracuse University and the Internet Governance Project. I'd like to relate back to the very powerful statement of the Chinese representative. The way I understood his comment is as a call for honest dialogue about the role of governments in ICANN about enhanced cooperation and about the Tunis Summit. This morning three, or maybe even four of the panelists defined "enhanced cooperation" as anything good that happened after WSIS. We know that is not what was at issue in the Tunis Agenda, that was not what was being debated, and that is not what brought the IGF into existence. To move forward on a positive basis, we organized a workshop on the future of ICANN and its joint projects agreement with the US government.

CHRIS DISSPAIN:

Can I ask you, what do you think enhanced cooperation actually means?

FROM THE FLOOR:

Enhanced cooperation meant governments and civil society negotiating the role of governments in global public policy for the Internet. The word "global public policy principles" appears twice in paragraph 70. There's no doubt about what it means. Now, we may have severe disagreements about the role of governments. But at least let's have an honest dialogue about it.

So this is what we tried to do in our workshop. We recognize that we are reaching a critical juncture in September 2009. That is when the US Joint Project Agreement expires. The Joint Project Agreement, or JPA, is a policy oversight vehicle through which the US government supervises ICANN. Our workshop took up the question whether we should allow it to expire as part of the transition to a more internationalized ICANN.

We heard different views. We had two government representatives, and we had private sector, academic and civil society representatives. I cannot say that there was a consensus on any particular view, but I can say that there was a predominant view coming out of this workshop – that the US government should step out of the JPA and let it expire and that it should do this as soon as possible, that is, in September 2009, and that the whole point of ICANN is to be independent of

territorial sovereign so that it can engage in global cooperation and coordination, not to have governments sitting over it in some kind of controlling fashion.

So I think it's interesting that when we had an unconstrained dialogue, we did not reach full agreement. We had some differences. But we did, I think, come to a very interesting conclusion that the US government should, indeed, step away from ICANN and allow it to operate as a multistakeholder entity, of course, with some new accountability mechanisms.

FROM THE FLOOR:

I again want to take up the comments from the government of China, and to say thank you very much for those comments. And it is not only governments that will agree with what you're talking about. Many of us feel that the root zone authorization process should be changed. And I think you'll find support from that broadly in civil society, you'll find support for that in many other cases as well. But adding to that, I think we should thank the US government for the role it played, taking on this role in the beginning of the Internet. There was a time when this function was necessary. There was a time when if this function had not existed, takeover by business would have been something that would have been not in the best interests of the growth of this. So there should be thanks to the US for the role, the legacy role, I must say, that they did carry when the Internet was very young and needed such a role.

I'm in the country of Mahatma Gandhi, and I do know what Mahatma Gandhi would say about a foreign government continuing to carry a role when things have grown up and we want to do it differently now. Where there will be difference is what should happen instead of this unilateral control mechanism. Most of us in civil society would like to see this carried on as perhaps a function of ICANN, which gives us reasonable multistakeholder input. So, in fact, we can look at that particular function as absolutely unnecessary. If ICANN has made a decision, having consulted on a multistakeholder basis, there is no need for any authority to override that decision, because everybody has been consulted. So, yes, I would definitely agree with the government of China, this is an issue. We should discuss it. Change is necessary. But I would say the change is to abandon the legacy function. It is no longer needed.

FROM THE FLOOR:

I'm with the Net Choice Coalition. This morning, Raúl Echeberría said that the enhanced cooperation was a compromise goal and it was admittedly ambiguous and it was arrived at in the final days of Tunis to avoid having to choose between existing or new mechanisms for Internet governance.

I care about enhanced cooperation, because I want to avoid a new mechanism for Internet governance that might be designed by and for government. Instead, I am one of those folks at ICANN who works every day on enhanced cooperation within existing mechanisms, and for years on ICANN working groups, on WHOIS, for

instance, trying to make WHOIS more accurate and accessible while also trying to preserve the ability for individuals to guard their privacy.

Now, there are individuals from governments who have been fantastic participants in these working groups. But the larger government organization in ICANN, the GAC or Government Advisory Committee, has not been as effective in this working group structure. I think there's a lot of promise there. But, currently, it takes too long for the GAC to answer follow-up questions, and it tries to get involved as a body as opposed to experts within a group.

So if governments actually avoid cooperation for the next two years, they would be able to look back and say that enhanced cooperation didn't work for the Tunis Agenda. Now, a cynical person would interpret that to say that they just want to justify the creation of a new mechanism. But I don't want to be cynical, not here at the IGF. It's an optimistic time and an optimistic place. And I would like to close by inviting governments to roll up their sleeves and work closely with those of us in the private sector here at IGF and at ICANN on enhanced cooperation. We can do it.

FROM THE FLOOR:

The main purpose and the main benefit of multistakeholder processes is to provide different perspectives on a given issue. In this respect, I would like to recall the expression "enhanced cooperation," which is basically to enable governments on an equal footing to carry out their roles and responsibilities in international public policy pertaining to the Internet, and not in the day-to-day operations. I would like just to highlight for the sake of better mutual understanding that there are two possible interpretations of this sentence. One is to focus on the fact that it is talking only about governments and that it is about the equality among governments. The other is that the equal footing can be also understood as the relationship and the roles and responsibility of governments versus other stakeholders. There is an ambiguity here, but it is not a problem because the reality is the relevant paragraphs are the respective roles and responsibilities of the different stakeholders.

A true multistakeholder environment involves all the actors. But the roles and responsibilities of the different actors will vary according to the issue, the venue and the stage of the discussion. You can have very technical issues where governments are marginally involved, but they must be there because otherwise the picture wouldn't be complete. You can have very policy-oriented issues that used to be addressed by only intergovernmental discussions where we need to have at least, and as much as possible, participation of the other actors. On an issue-by-issue basis, the balance will change. If we talk about child pornography, it is going to be different actors and with a different balance of policy engagement than about the policy for distribution of IPv6-IPv4 addresses. So if we begin to talk about issue-based network, we will make progress.

I want to mention ICANN, also for the sake of distinguishing different problems. When we talk about the evolution of ICANN, there are basically different issues, and it's important to address separately the question of the functioning of ICANN today

that is covered by the JPA, and the question of the evolution of the IANA contract. These are two separate issues. They might have different challenges, different timelines, different ways to address them.

But what I want to highlight regarding ICANN, and it's an official comment on behalf of the French government, is that the introduction of IDNs is putting us with a challenge of managing a multiscrypt domain name system. This is the most important evolution in the domain name system. It cannot not have political implications in terms of the roles and responsibilities. And in this respect, we support the notion of a multi-polar management of the DNS system because it has to be a distributed responsibility within interoperability.

The last point is that the legitimacy I was mentioning has to do with the way work is being done within ICANN. The working methods within ICANN and the GNSO reform and the reform of the working groups is one of the critical elements that should be more taken into account in the PSC process so that we move towards a fully internationalized and fully multistakeholder ICANN by the end of 2009.

FROM THE FLOOR:

I just wanted to thank the previous speaker. I thought he did a great job on giving some more clarity around the notion of multistakeholders and the continuum in which the importance of various actors in a multistakeholder environment hold. What I wanted to say primarily is the Internet is what it is today to a great degree because of the multistakeholder bottom-up environment that it was created with. It really is a dynamic, living, vibrant organism. And before we throw on additional layers of government and governance, another layer, a blanket or a cynic would say a wet blanket on it, we need to be very careful about doing that. I would ask all the participants in this room to think back 10 years, and if we said, "Let's let an intergovernmental organization create and drive the Internet," where would we be today? I think the next question I would ask is, why would we go forward differently for the next 10 years of the Internet?

Now, I hear what Parminder says and that line of reasoning, and I'm not so naive to think that because of the scale we're at that the next 10 years aren't different than the last 10 years. And that governments are really waking up to the importance of the Internet, and the Internet to governments. But I have also heard considerable discussion around the role of the GAC, that there are 100 members, 40 show up and a handful really participate and do the heavy lifting. Roll up the sleeves, I think is the expression we heard just a little bit earlier. So there is an existing structure for governments to participate in that, from all accounts, is a fairly underutilized one. In Seoul, the OECD meeting, there were a number of stats that were thrown about, but one that really struck me was in the last 10 years, the general economy has grown, and I probably have the numbers somewhat wrong, but the order of magnitude will be right, that the global economy has grown some roughly 50% in the last decade but the Internet economy has grown roughly 12,000% in that same timeline. So before we jeopardize that, I think we need to think very carefully about additional layers of governance and government. They have an absolutely critical

role to play, but we do have good vehicles, and by all accounts, underutilized vehicles for them to play that role in.

CHRIS DISSPAIN:

I had hoped that we would have time to broaden this discussion out onto some other things, and I do just want to quickly deal with participation, because I think it's important. It ties in with some of the other comments we have had about enhanced cooperation within the concept of the IGF, people not being here and so on.

FROM THE FLOOR:

I'm from the Association for Progressive Communications. I'm going to talk about a workshop that was working towards the code of good practice on public participation and Internet governance. This is not strictly a matter of public policy principles in terms of enhanced cooperation, but looks more at procedural arrangements with respect to Internet governance. And the aim of this workshop was to work towards a code of practice on public participation, transparency and access to knowledge or information within Internet governance institutions. And the idea is to see if as many as possible of the institutions that are dealing with Internet governance could adopt this code of practice. Within the workshop, there was an agreement that the next steps would involve a comparative mapping of exactly how our Internet governance institutions are treating access to information, transparency and public participation. And the second step would then be to draft a code of good practice and to take it forward from there. The organizations that are leading this process are the Council of Europe, the UN, Economic Commission for Europe and the APC. Some of the institutions represented here, the NRO, ICANN and ISOC, have agreed to participate in the comparative mapping process.

FROM THE FLOOR:

Just a quick comment to rebound on what has been presented. Maybe you noticed that at its last international meeting, ICANN board announced the creation of a new committee which is called Public Participation Committee. And I have the honor of chairing that. I just wanted to mention that we will be very attentive to your recommendations, and we will try to improve the public participation in ICANN.

FROM THE FLOOR:

This is a very short comment. There was something that was mentioned many times, and probably for some people, it could be appreciated as a disagreement. And I would like to clarify that. This is the relationship between ICANN and the US government. I think that ICANN has received broad support to become an independent organization and to finish the relationship with the US government. I think that most of us here agree that a single government should not have a special role in the Internet governance. And sometimes when it is said in these public forums, it is presented as it would be a point of strong disagreement. And I think that it has broad support, the idea that this is something that has to change.

CHRIS DISSPAIN:

Yeah, I think that's right. I mean, there's broad support for the principle of that. There's no consensus about what should happen instead.

I'm going to ask Emily to sum up for us briefly and then hand you back to our Chair for closing remarks.

EMILY TAYLOR:

I must say, as a listener to the debate, I am quite amazed and heartened by the quality of it and the different points of view that were being put across by various people. It was interesting how it shifted and exchanged and almost transformed at one stage to a discussion not about enhanced cooperation, but about the role of the IGF itself. And, no doubt, those themes can be taken up in the "Taking Stock" and "Looking Forward" sessions.

There were some very strong expressions of frustration, not just with the IGF, but also with the current way that things are organized, and particularly with ICANN as effectively being the elephant in the room. Others expressed the view that if you want to get something out, you have to put something in. And those sort of themes were expressed both in the context of the IGF and how it might be improved, but also in the context of ICANN.

Again, we heard different views of what enhanced cooperation might mean. Is the IGF, as one speaker put it, an example of enhanced cooperation at regional and national levels? Is it about, as another person said, bringing people together across organizational and stakeholder boundaries? Is it about sharing good practice as a development goal, as a way of achieving development objectives? And one person mentioned very strongly that back in the Tunis days, enhanced cooperation was never supposed to be about creating new institutions. So, again, a plethora of different interpretations. The ambiguity is certainly being played out.

There was a strong focus on ICANN, its evolution, the role of the GAC, expressions of frustration from some quarters, practical suggestions for improvements from others, the emphasis on participation and the people who are doing the real heavy lifting, both within the GAC and other sections of the community, the importance of reforming working methods.

There was a whole theme about expressions of desire that one government, the US government, should step out of its role, its current role, in authorizing root server changes. And while several people expressed that, and one speaker said some new accountability mechanisms will need to be put in place, I don't think I heard very many concrete proposals of what those accountability methods would be. And perhaps that's something for us to take forward.

CHRIS DISSPAIN:

Now I'll invite our Chairman to sum up.

MADHUSUDAN MYSORE:

It has been a fantastic debate both in respect to the role of IGF, and also about IPv4 to IPv6 migration. Is it really a risk? Are there operational concerns? Are there technological concerns? Let me just give you an example. I work for Tata Communication. We are a tier-one ISP globally, and we have migrated successfully since last year, but it's not that we did not go through the risks, or that we did not go through the concerns or the issues that, as a part of the discussion, we did speak about. Having said that, is there a business case for going forward on a standalone basis for v4 to v6 migration? If all of us together are convinced that number of addresses is an issue, then I think there is a good case for what we need to do going forward. The second point on which I thought there were very good discussions was enhancement of participation, whether it is public, whether it is role of IGF itself, and then how the government should be able to help on this. I can say that from both service providers and as well as from the government, I think you cannot say who needs to take the lead on what, and there needs to be a joint ownership, which we need to drive together.

Reports of Workshops, Best Practice Forums, Open Forums and Dynamic Coalitions

Arrangements for Internet Governance

WS 22: Lessons Learned from the Engagement and Facilitation of Internet Users into Policy Development and Processes within ICANN via the ICANN Board's At-Large Advisory Committee

Moderator: Cheryl Langdon-Orr (APRALO elected representative to the ALAC and current Chair of the ICANN ALAC 2007-2009)

Panellists: Hawa Daikite (AFRALO elected representative to the ALAC, Mali); Dr. V.C. Vivekanandan (APRALO elected representative to the ALAC, HRD IP Chair Professor & Head, Centre for IP Law studies, Director, NALSAR Proximate Education, University of Law Hyderabad); Sivasubramanian Muthusamy (President ISOC India, Chennai & CEO at Turiya)

Firstly we reviewed the background and structure of the ALAC ⇔ ALO ⇔ ALS model that is currently acting as a primary voice of the Internet user in the policy development of ICANN. The At-Large Advisory Committee (ALAC) is responsible for considering and providing advice on the specific activities of the Internet. Underpinning the ALAC is a network of self-organizing, self-supporting At-Large Structures (ALS) throughout the world involving individual Internet users (the "At-Large" community). The At-Large Structures (ALS) are either existing organizations such as NFPs, consumer interest groups (often focused on telecommunications and communications access matters), ISOC Chapters, or newly formed for this purpose. ALS organize into five Regional At-Large Organizations (RALOs), one in each At-Large Geographic ICANN region – Africa, Asia/Pacific, Europe, Latin America/Caribbean, and North America. The RALOs manage outreach and public involvement and are the main forum and coordination point in each region for public input to ICANN. ICANN relies on the ALAC and the broader At-Large community to involve and represent into ICANN policy development a broad set of individual Internet user interests, gathered locally from their grassroots membership and local activities and resources.

The Portal for the Grassroots At-Large activities within the ICANN Multistakeholder model, the ALAC and links to our Regional Microsites was looked at and discussed as a useful tool. The Working Group Model and collaborative Wiki spaces and mailing lists we used were discussed and the limitations of time taken for information turn around in such a (often criticized) complex, layered model was explored but the benefits that this model allows for both better and more effective involvement from emerging and developing economies and regions and specifically those who do not have either high quality and cost-effective access to Internet facilities and services at this time and who are not native speakers and users of the English language, with its ability to "think globally and act locally" (in this case,

discuss and be involved with ICANN Policy Development issues, et cetera); as well as this model's ability to ensure equitable access to and the sharing of opportunities and resources; at this point outweigh the issues raised by the layered complexity though it is recognised that once well facilitated interaction and activity are established amongst the ALS and when a true Global Network of them exists a modified or more streamlined model could and should be explored.

This led to an exploration of the engagement of true and representative diversity (encompassing not just accessibility and enabling tools and mechanisms but also gender, cultural and language diversity) in the global context of a multistakeholder input model of Internet Governance. Specifically looked at then was the experiences of ALS and the RALO through the direct experiences of Asia-Pacific Region and Africa, by the panelists' presentations. The Africa/AFRALO presentation (done paragraph by paragraph in French and English to highlight the importance of translation and interpretation requirements as a facilitation tool) further focused on why, as end users of the Internet, Africa must participate in the IGF and specifically what lessons have been learned from the ALAC experience and identified both what is being well done and what needs further work. Much of which is reflective of the experience of all Regions but particularly those in the developing and emerging economies and those who are not predominantly single-language users such as North America.

What is being well done?

- Networking, recruitment of ALS (AFRALO well represented among the five regions, 20+%)
- Information sharing including provision of translation during meetings
- Capacity building for ALS representatives: information/training on ongoing Internet issues

What needs to be done?

- Promote capacity building on Internet-related issues at the local level
- Recommend the inclusion of Internet governance in official training programs in conjunction with GAC
- Support the organization of IGF at local levels for better participation of the end users
- Involve the end users (ALS) in the preparation and organization of the IGF
- Promote the creation of working groups per IGF theme for better participation
- Participate in the IGF evaluation to measure the impact of African engagement

The session then looked at specific lessons learnt and what still needs to be done, at a time when a formal and independent review of the ALAC is nearing completion. A recent PhD thesis by Jeremy Malcolm, "The Internet and Governance: Designing

a Governance Network Internet Governance Reform,” outlines some ideal criteria for a governance network for the Internet:

- An open and transparent forum
- Of multistakeholder composition
- Engaging in democratic deliberation
- Led by a multistakeholder executive body
- Representatives chosen by participatory means
- Ratifies the forum’s decisions by consensus between groups

All of these criteria, in the opinion of the session attendees and panelists, are being met by the current ICANN–ALAC model and are summed up by Grace Ayres’s discussion paper “ICANN’s Multistakeholder Model.”

WS 26: A Code of Good Practice on Public Participation in Internet Governance

Organizers: The Council of Europe (CoE); United Nations Economic Commission for Europe (UNECE); and the Association for Progressive Communication (APC)

Opening remarks: Maud de Boer-Buquicchio, Deputy Secretary General, Council of Europe (video message)

Chair: Anriette Esterhuysen, APC

Introduction: William Drake (Centre for International Governance, Graduate Institute for International and Development Studies, Geneva); Prof. David Souter (consultant expert)

Interactive discussion: Bill Graham (ISOC); Thomas Schneider (OFCOM, Switzerland); Massimiliano Minisci (ICANN); Paul Wilson (Number Resource Organization [NRO])

Closing remarks: Hans A. Hansell (UNECE)

During the second Internet Governance Forum the CoE, the UNECE and the APC organized a best practice forum that discussed the possibility of using the UNECE Aarhus Convention as a benchmark for developing a code of conduct for Internet Governance. Following the positive response to the best practice forum, a study was commissioned to develop a Code of Conduct that could serve as input to the Internet governance discussions.

A consultation, entitled “Towards a code of good practice building on the principles of WSIS and the Aarhus Convention,” was organized jointly by UNECE, the Council of Europe and the Association for Progressive Communication on 23 May 2008 in Geneva.

Subsequently a discussion paper was developed for the third Internet Governance meeting. The purpose of the workshop was to explore if a roadmap for how such a code could be developed.

During the workshop several speakers from the audience expressed their support for the initiative.

The main conclusion from the workshop was that Internet and its governance is made up from a large number of organizations, standards bodies and governments and in view of the concern about its governance it was felt that the quality and the inclusiveness of Internet governance would be improved by making information about decision-making processes and practices more open and more widely available, and to facilitate more effective participation by more stakeholders.

A practical way of achieving this could be the development of a code of good practice dealing with information, participation and transparency. Such a code should be based on the WSIS principles and on existing arrangements in Internet governance institutions. In this context the experience of developing and implementing the Aarhus Convention could serve as a benchmark for the work.

The first aim is to make it applicable across a broad range of decision-making bodies which means that the code must be expressed in broad and general terms. However, it should not be a very comprehensive document but be restricted to a couple of pages.

As a way forward it was suggested a first step could be a comparative assessment (mapping) of existing arrangements in a number of selected Internet governance institutions that would agree to participate in such an exercise. However equally important would also be not only to listen to institutions but also to listen carefully to the users. In this case a bottom-up approach is as important as the top-down.

Following such a mapping exercise, a small working group could develop a work plan leading to a draft code which could then be presented for discussion in the wider Internet community.

The UNECE offered to host a first working group meeting at the United Nations in Geneva.

WS 43: Legal Aspects of Governance of Critical Internet Resources Functions

Organizers: Alfa-Redi; American Bar Association, Section of Business Law, Internet Governance Task Force; Council of Europe; Global Internet Policy Initiative (GIPI); Internet Society – Bulgaria (ISOC-Bulgaria); Internet Society – Pacific Islands; Moscow State University, Institute for Information Security; Oxford Internet Institute; World Bank Legal Department (WB)

Moderator: George Sadowski (GIPI)

Panelists: Amitabh Singh; Erick Iriarte

This workshop was the third in a series of IGF workshops exploring various legal aspects of Internet governance. As such, these workshops have been the only workshops specifically devoted to legal aspects of Internet governance. These legal

aspects are an important part of building capacity of policy-makers, legislators and other constituent groups on a variety of matters included in Internet governance, enabling a broad spectrum of stakeholders to more meaningfully participate in debates about Internet governance at the national, regional and international levels.

The purpose of the workshop was to address the various functional attributes relating to the robustness and security of Critical Internet Resources and to assess how different legal and institutional governance models could be mapped to those CIR functions. While there is some literature dealing with the nature of different possible legal forms, the literature does not go the extra step of analyzing these legal, organizational forms vis-a-vis the functional attributes of CIR governance.

Accordingly, the purpose of the workshop was to provide as wide a perspective as possible regarding what the legal considerations would be for mapping different organizational structures to different CIR functions. The Workshop was aimed at (i) raising awareness of the relationship between the CIR functions and their corresponding legal/organizational responses, (ii) assessing whether the organizational forms that are addressed in the literature comprise a complete list of possible organization forms and (iii) most importantly, analyzing the consequences (pros and cons) of these forms against those different CIR functional attributes.

The framework for analysis consisted of, first, identifying what the different CIR functions are. The WGIG report and associated background report provided an overview. Then for each CIR function, the workshop analyzed what the function is, how that function is exercised and by whom and what the emerging legal issues are in relation to that function. Finally, the workshop explored what the pros and cons are likely to be of the current and proposed legal and organizational forms that are assigned to each CIR function.

The workshop featured two speakers. The first speaker was Mr. Amitabh Singh, who is the founder and former President of the ISP Association of India as well as the founder, former CEO and Board member of NIXI, the national Internet Exchange of India. The second speaker was Mr. Erick Irtate of Alfa Redi.

The following is a summary of the discussion raised by the speakers at the workshop.

Mr. Singh opened the discussion by referring to the terms of reference from the Working Group on Internet Governance, including the relatively wide definition of internet governance proposed by the Group, and identified a set of policy issues identified by the WGIG. He then focused on the policy issues of direct relevance dealt with mostly by ICANN through a broad-based, bottoms-up, consensus-driven consultation process from the global community. Policy issues of public relevance were also identified.

The discussion then moved on to management and oversight spanning the regional user communities, the various network information centers and ICANN. He discussed the ICANN institutional mechanism as it exists, and examined the need for alternative institutional mechanisms. He examined the four different models

proposed by the WGIG and isolated some common features of all of the models. He extracted from each of these mechanisms some implicit points that were common to all of the proposed WGIG structures.

The workshop then heard a summary of different legal influences on the administration of domain names in Latin America from Mr. Iriarte. He first reviewed the public, private and quasi-public (public/private) nature of domains in Latin America, and then reviewed some of the national and regional legal frameworks governing the regulation of domains in Latin America, including, for example, application of UDRP processes in Chile and Panama. In this context, the treatment of certain intellectual property aspects of domain names in both national and regional legal frameworks was also discussed.

WS 46: The Future of ICANN: After the JPA, What?

Organizers: Internet Governance Project (IGP); The Go Daddy Group; Pharos Global; Internet Governance Caucus (IGC)

Moderator: Lee McKnight (IGC)

Panellists: Milton Mueller (IGP); Stefano Trumpy (GAC representative, Italy); Len St. Aubin (Industry Canada); Michael Palage (consultant to registries and registrars); Jean-Jacques Subrenat (ICANN board member)

ICANN, which coordinates and sets policy for the global domain name system (DNS) and IP addressing, is linked to the US Government through a Joint Project Agreement (JPA) that expires in September 2009. The JPA and its renewal process provides what, during WSIS, became known as “political oversight” over ICANN. The US government says that it is committed to completing the transition to private sector coordination of the DNS, which implies an expiration of the JPA. During the 2008 mid-term review, ICANN made it clear that it also strongly supports an end to the JPA. ICANN's call was supported by some stakeholders. Other parties, however, expressed concerns about its accountability without some kind of governmental oversight.

This workshop was designed to provide a careful and balanced exploration of whether ICANN is ready to be free of US government oversight, and if so what kind of external oversight – if any – should replace it. Specifically, it asked whether we should allow the JPA to expire as part of the transition to a more internationalized ICANN or whether the US should continue to hold this form of oversight. (The JPA is not the same as the IANA contract, through which the US delegates control the DNS root to ICANN.)

The workshop was sponsored by the Internet Governance Project, The Go Daddy Group, Pharos Global and the civil society Internet Governance Caucus. The workshop was moderated by Lee McKnight of the IGP. Panelists included Milton Mueller, an academic researcher in the IGP, Stefano Trumpy, the GAC representative of Italy, Len St-Aubin of Industry Canada, Michael Palage, a private-sector consultant to registrars and registries, and Jean-Jacques Subrenat, a Board

member of ICANN. Unfortunately, Tim Ruiz and planned speakers from Russia and Egypt could not attend. Ruiz, however, submitted a paper which outlines his concerns.

Milton Mueller outlined the original rationale for making ICANN a private sector nonprofit. The purpose was to internationalize the administration of DNS without using a treaty or intergovernmental organization. Private, contractual governance allowed global coordination to take place without top-down governmental control. He noted that this transition to a privatized DNS had been stalled as the US never relinquished control. He outlined the main political obstacles in the US to ending the JPA and then asserted that full privatization was still a worthy goal. He asserted that post-JPA, the IGF could provide “soft oversight” of ICANN. But ICANN also needs harder forms of accountability, such as a democratically elected Board, a better appeals function and perhaps some form of recall or “vote of no confidence” procedure.

Michael Palage said he thought the JPA was not a very important issue. Before it could be concluded, ICANN and the USG must find a suitable legal construct for those key Internet resources currently under the USG’s oversight, such as the gTLDs, .GOV, .MIL and .EDU; the ccTLD (.US) and the three root servers (E, G & H). Palage asserted that “It is hard to convince other national governments and ccTLD operators that may have valid national sovereignty concerns to enter into a formal agreement with ICANN, when the USG itself has not yet done the same.” Palage also called upon ICANN to “formally recognize that its policies and contracts cannot supersede national laws,” giving examples of when this has been a problem. Finally, he called upon ICANN to withdraw from any and all operational roles in connection with critical Internet resources and instead focus on their coordination (e.g., running .arpa, root signing).

Len St-Aubin emphasized the need for the global Internet community to build on the established features of ICANN rather than to pursue a new model. Canada is especially concerned about preventing “capture” of ICANN by any stakeholder group. St-Aubin asked for “further information on the significance of ICANN having international not-for-profit status.” Canada thinks the GAC should remain advisory and be limited to three functions: 1) serving as an information conduit between governments and ICANN; 2) providing advice on issues that raise broad public policy concerns and 3) enabling GAC members to share information and opinions. GAC should not be viewed as a decision-making body, nor should it be expected to routinely provide a consensus view on issues. ICANN needs to address its outstanding governance issues if it is to achieve legitimacy post-JPA. He concluded by saying, “People and organizations do not operate in Internet time. It is more important to get this right than to do it fast.”

Stefano Trumpy agreed with Canada on working within the ICANN model. Italy favors “a controlled, step-by-step evolution of the status quo.” He said that governments should not be more influential than they are today. GAC should remain advisory. “Coherently with the expressions contained in the Tunis Agenda, the community should be in favor of the termination of JPA as a first important step

in the direction of internationalization of the management of critical resources.” Governments need to clearly express their opinion on the JPA. Trumpy called upon those interested in ICANN to “be pragmatic,” and to avoid elaborating too much on the role of governments. Instead of supervision, Trumpy said, ICANN should be confronted with regular reporting to the enlarged community, through for example the IGF, where ICANN could receive non-binding recommendations.

Jean-Jacques Subrenat, ICANN Board member and member of the PSC (ICANN President’s Strategy Committee), began by pointing out that previous speakers had used the term “privatization” as a description of ICANN’s model. In Europe and elsewhere, “privatization” tends to connote for-profit industry and business in general, whereas in the USA it designates broadly what is not led by public authority. He preferred to call it the ICANN “multistakeholder model,” with various components, including of course business and governments, on an equal footing. Subrenat went on to present briefly the ongoing work in the PSC, and its significance in the context of the JPA, especially on such items as accountability (not only in the case of a non-confidence vote, but at various levels), and internationalization (including, but not limited to, establishing an additional legal entity outside the USA). Subrenat offered the view that “the termination of the JPA offers a unique opportunity to move toward a fully multistakeholder ICANN.” But following on the US presidential election, there is for the time being some uncertainty as to the position the incoming US administration will adopt.

Tim Ruiz’s written paper said that Go Daddy has “serious concerns regarding ...the implementation plan for new gTLDs, the...expansion of ICANN’s once narrow mission and its growing regulatory behavior, as well as the evolving roles of the GAC and ALAC within ICANN policy processes.” He outlined concerns that need to be addressed before a post-JPA ICANN will achieve full legitimacy and trust of its stakeholders: access to documentation of how and why decisions are made by staff and board; improvements to existing accountability mechanisms; and additional accountability mechanisms.

During the lively discussion period, the panel took up issues such as:

- Whether ICANN is truly multistakeholder. One audience member pointed out that the US government officials described it not as multistakeholder but as “private sector-led.”
- Use of the IGF as a “soft oversight” mechanism to replace the JPA and how that might be implemented.
- The importance of IANA functions. An ICANN Board member in the audience noted that ICANN has created an IANA committee, and that policy-making activity for addresses has shifted to the Regional Registries, so the JPA may not really matter.
- The problem of “ambitious governments” who might want to exert control over ICANN was noted by one audience member.

The absence of panelists from developing countries was noted. Professor Mueller, speaking on behalf of the organizers, agreed that this was a problem but noted that the cancellation of the two speakers from Russia and Egypt made it unavoidable.

Professor McKnight concluded the workshop with a straw poll. Proposition 1 was that “expiration of the JPA in September 2009 would be good first step toward internationalization of ICANN.” The other proposition was that “more time is needed before the JPA should be allowed to expire.” In an informal vote, approximately 35 voted for Proposition 1 and 10 in favor of Proposition 2.

WS 81: National Multistakeholder Processes and Their Relation to the IGF

Organizers: French Ministry for Foreign and European Affairs; Nominet (UK)

Moderator: Bertrand de la Chapelle (France)

Panelists: Yrjö Lansipuro (Finland); Alun Michael (United Kingdom); Demi Getchko (Brazil); Ndeye Maimouna Diop Diagne (Senegal); Stefano Trumpy (Italy); Qusai Al Shatti (Kuwait); Alice Wanjira Munyua (Kenya); Thomas Schneider (Switzerland); Wolfgang Kleinwächter (Germany)

Several countries have independently established at the national level multistakeholder processes or structures to address national policy choices and/or interact with the Internet Governance Forum. Similar initiatives have emerged more recently at the regional level.

The purpose of the workshop was to gather actors involved in these initiatives to study real-life examples of the various ways this was achieved with respect to the local and historic context. Panelists from Brazil, Switzerland, the United Kingdom, Finland, France, Germany, Italy, Kenya, Senegal and Kuwait, coming from the different stakeholder groups, described their experience of national or regional initiatives. Other initiatives, from Latin America and the Caribbean in particular, were also identified in the course of the Hyderabad IGF.

The workshop illustrated the diversity of the mechanisms put in place and their different degree of development and link with the IGF; it identified some common elements to help launch such initiatives and mapped the way forward by deciding the creation of a Dynamic Coalition to develop the network of Forums.

Origin: early multistakeholder initiatives predated even the launch of the World Summit on the Information Society (Brazil, France), or were created to foster national interaction during the WSIS process (Finland). The recent ones, however, can be considered as an indirect outcome of the WSIS and more specifically, were inspired by the example of the Internet Governance Forum.

Convenors: early initiatives often came from the governments who created independent ad hoc structures where they retain a nominating capacity (Brazil) or participate – with others - in the oversight (France). Governments are also involved in the recent initiatives but at more diverse levels: some are the initiators and

maintain a full management responsibility (Senegal, Kuwait), some actively supported initiatives taken by the private sector (UK) or civil society (Italy, Germany, Kenya). More rarely, the initiative was fully from civil society, with the government invited to participate (Germany). Regional initiatives were usually the result of a self-organized co-initiative by a diverse group of stakeholders (such as at the European level with the Euro-DIG).

Scope: while the most recent initiatives principally foster exchanges among stakeholders on the agenda of the IGF, they also begin to bring into focus issues that are specific to the region or the country, either to highlight them at the global level or to influence the national process. By contrast, older efforts were understandably more oriented towards the national level, including for instance the management of the national ccTLD (Brazil) or the development of codes of conduct among national actors (France).

Structure: the most recent initiatives, inspired by the IGF, have adopted a relatively informal approach, often without formal incorporation. They may further develop (as in the UK) by encouraging the creation of thematic groups (like the Dynamic Coalitions) to address specific issues. Older initiatives, by contrast, usually established a formal structure with explicit representation of various colleges of stakeholders and working groups.

Competences: the IGF-inspired initiatives currently conform to the dialogue and non-decision making approach. The more structured initiatives that predated the IGF have often been given the capacity to make recommendations to specific sectors of activity or the government. In some cases, they have a decision-making capacity and can play a mediation role to ensure the respect of the national regimes they helped develop.

In spite of the diversity of formats that reflected the time when these processes were instituted and the national cultures, some common elements emerged from the discussion and can guide the formation of other national or regional processes, among which:

Individual initiators are critical at launch: motivated individuals were almost everywhere instrumental in the launch of the initiative, be they in government, in civil society or business at the time. Their continued involvement in the early stages is critical, as the transition of a champion to another job can weaken the dynamic (particularly if the initiative is launched by a specific governmental actor). But, as the panelists themselves illustrated, they often had a personal career path that combined experiences in two or more stakeholder groups and helped them mobilize a broad range of actors.

Some informality is welcome initially: spontaneous self-organization by a few actors reduces the barriers to entry and enables a smooth launch, without lengthy discussions on structures and representation. Organizing a simple preparatory workshop for the IGF can kick-start a process that can progressively structure itself afterwards.

Governments do not need to be the initiators but they need to be involved: the involvement of governments is a factor of legitimacy but some degree of independence helps the process to be truly multistakeholder. It also helps nurture debate on national issues. One case (UK) highlighted the benefit of involving parliamentarians in such discussions.

Articulation between national and international deliberations is key: national and regional forums should not only prepare for the International IGF but also bring back and help disseminate the results of discussions at a higher level. This two-way interaction fosters a synchronization of agendas, by raising local awareness of global issues and nurturing the global agenda with concrete dimensions and local priorities.

The workshop demonstrated the benefits of the replication at national and regional levels of IGF-inspired spaces for multistakeholder interaction (in line with the WSIS recommendations), and the potential that improving their inter-relationship offers.

It also showed that such a network of IGF-related spaces would greatly facilitate outreach and potentially be a support for the remote participation efforts of the IGF, particularly in developing countries.

Last but not least, regular exchanges of experiences between the promoters and animators of these national and regional processes would help them develop their activities and provide actors planning similar initiatives in other countries or regions with useful guidelines and support.

Therefore, the organizers and participants in this workshop have announced their intention to establish a Dynamic Coalition to help develop the IGF network of forums. This Dynamic Coalition will, inter alia :

- make an inventory of the existing national and regional processes with the corresponding contacts
- foster exchanges among these actors on organizational issues of common interest
- assist as needed, actors willing to establish similar initiatives
- interface with efforts to promote remote participation

WS 85: The Transboundary Internet: Jurisdiction, Control and Sovereignty

Organizer: Internet Governance Caucus

Chair: Ian Peter (Ian Peter & Associates)

Panelists: Meryem Marzouki (European Digital Rights [EDRI], Europe & National Centre for Scientific Research [CNRS], Univ. Pierre et Marie Curie, France); William J. Drake (Centre for International Governance, Graduate Institute of International and Development Studies,

Geneva); *Miriam Sapiro (Principal, Summit Strategies International)*; *Rishi Jaitly (South Asia Government Affairs Manager, Google)*

The Internet crosses the boundaries of all nations and raises some unique transboundary jurisdictional problems. The recent case of a British citizen living in Spain, with Internet servers in the Bahamas, selling holidays to Cuba, and having his domain name impounded by a registrar located in the USA because it appeared to break the US embargo against Cuba is one recent case in point. Another landmark case was the French-US Yahoo! case in 1999 dealing with sale of Nazi memorabilia, but apart from these high profile content cases there are many examples in other areas such as privacy, consumer issues, cyber-crime and intellectual property.

The workshop discussed the many implications of competing national jurisdictions being projected into a globalized space where multiple normative sources apply, such as political, legal, technical, contractual and behavioral regulations. Through practical case studies, this workshop looked at the implications of various approaches to resolving these issues and the implications for Internet governance, international law, national sovereignty, democracy and human rights and fundamental freedoms.

The workshop also explored the implications for Internet governance where no structures are in place to deal with emerging issues, and how default unilateral action in the absence of structural alternatives can lead to de facto Internet governance.

A lively discussion between the panelists and with the audience ensued. A particular highlight was the presentation by Google's Rishi Jaitly. Mr Jaitly had worked as a member of the small policy group within Google that deals with requests from governments and other bodies for removal of offensive content. Mr Jaitly spoke candidly about how Google deals with such requests, particularly as regards YouTube content, and requested feedback on how it could better act in the public interest here.

Several government representatives involved in content regulation spoke about specific incidents and difficulties in this area.

There was a general feeling in the summation of the workshop that there was much that needed to be evolved in this area, and that exchanges such as those that took place during this workshop were helpful in understanding some of the complexities in this area.

BPF 71: UK Best Practice Forum on Partnership in Action

The sessions showcased real examples of how different stakeholders have addressed issues relevant to the IGF main themes. In particular the discussion focussed on showing how stakeholders have helped to find solutions to the issues

arising from the use and misuse of the Internet that are of particular concern to everyday users. Examples highlighted in the session were drawn from multistakeholder cooperation in the areas of education, combating e-crime and child safety on the Internet and included work identified through the Nominet Best Practice Challenge competition.

Andrew Miller MP showcased the work of the UK Parliamentary IT Committee (PITCOM), <http://www.pitcom.org.uk/>. This is designed to encourage Members of Parliament to engage with primary schools through a competition the committee has organized, <http://makeithappy.cc4g.net/>. Since Hyderabad we have launched our third such event and have ambitious plans for the future. Projects like this and the other 'best practice' presentations are hugely important as we can all learn one from another.

Alun Michael MP described his work with industry, government and law enforcement to improve cooperation between stakeholders. Working together has helped improve understanding of interrelation between the partners. All actors need to share the responsibility for providing a safer on-line environment. And this cooperation helps build improved trust, making the UK a more welcoming environment for e-business to flourish. Simply leaving it to users to cope with the threats from crime and understand the choices they make in sharing personal information is no longer an option: there are challenges and threats to business and other users. And the point of the Internet Crime Reduction Partnership is to create a joined-up approach to enabling people to be – and to feel – safe online.

Margaret Moran MP highlighted work in the UK on addressing the needs of children online. She referred to the report for the Prime Minister by Dr. Tanya Byron, a reputed child psychologist and media personality: Safer Children in a Digital World (www.dcsf.gov.uk/byronreview/) and to the creation of the UK Council for Child Internet Safety (UKCCIS) (www.dcsf.gov.uk/ukccis/), which unites over 100 organizations from the public and private sector working with the Government to deliver recommendations from Dr. Tanya Byron's report.

Dr. Jeremy Beale looked at the role of industry in meeting its responsibilities as part of an industry self-regulatory model. The Internet provides an excellent opportunity for businesses, but this will be undermined if users and businesses lose confidence. However, the nature of the medium is such that conventional legislative responses are too slow and are often not well targeted, making it hard to respond to rapid developments on the Internet. Examples of industry and cooperative initiatives show that more can be achieved through such partnerships, providing a strong framework for the development of e-business in the UK. He used examples of the Internet Watch Foundation – a UK self-regulatory body providing a public hotline and "notice and takedown" service on behalf of the online industry. It works to minimize child sexual abuse content hosted around the world – and the dialogue between the banking sector and Nominet, the .uk registry on addressing phishing.

Emily Taylor focused on the Nominet Best Practice Challenge: this initiative was designed to celebrate success – looking at ways organizations and individuals were

helping to make a difference in making the Internet a safer, more inclusive, more fun place to be, focusing on solutions.

In her overview, Emily highlighted the entries and winners of each of the six categories – development, security, industry standards, personal safety, Internet for all and the open Internet – as well as a special award for Internet and culture for the British Library's sacred texts Web resources (www.ukigf.org.uk/resources/Best_Practice_Challenge_winners_booklet.pdf).

Winners included: local initiatives like Age Concern Edinburgh Information Technology and Common Knowledge UK, focusing on improving access to the Internet for particular groups (older people and people with cognitive learning difficulties); a national charity YouthNet, providing an on-line volunteering resource; a joint government-law enforcement-private sector partnership Internet security awareness campaign, Get Safe Online; and major names like Barclays Bank and the Internet Watch Foundation.

The Nominet Best Practice Challenge is now an established feature of the UK's IGF preparations.

Ian Taylor, summing up, noted the importance of multistakeholder cooperation in addressing Internet governance issues. The UK-IGF initiative is a key to improving the value the UK draws from the IGF and goes to the heart of the IGF's remit to facilitate the exchange of information and best practices. By looking at solutions and partnership in practice, it contributes to understanding Internet governance issues.

OF 90: ICANN's Multistakeholder Model

Paul Twomey: Opening remarks addressing new gTLDs; IDNs; security aspects like DNSSEC, ccTLD ACRP program, data escrow for Registrars; IPv4 to IPv6 transition; process for ongoing reform: reviews of GNSO, ALAC, RSSAC, ICANN Board, as well as the IIC work.

Paul Wilson talked about NRO's work in relation to IP numbers policy; the exhaustion of the IPv4 and the slow pickup of IPv6; he said that the IANA pool of IPv4 is expected to run out in two years, yet there is plenty of time to deploy IPv6; he added that NRO is also interested in issues like JPA and relationship with USG, as well as DNSSEC.

Avri Doria talked about the GNSO's role in making policy recommendations to the ICANN Board; and highlighted work in relation to new gTLDs, as well as current issues underway such as GNSO restructure and fact based studies on WHOIS.

Cheryl Langdon-Orr highlighted the grassroots end user input on all topics; the ALAC review, and the At-Large summit in Mexico.

Bertrand de la Chapelle said that the GAC does not address topics different from those being discussed within ICANN; he highlighted three major transitions that ICANN is currently going through: 1. IPv4/IPv6 (governments have a role to play in education); 2. new gTLDs (new categories of names are emerging: city names,

corporate TLDs, et cetera); 3. IDNs. Bertrand stressed that the question that we should not avoid is the one about the role of governments in ICANN. In his view, the advisory role is not the problem, it is rather the modalities of collaboration among the various stakeholders keeping in mind that the value that governments can bring to ICANN is the public policy angle.

Chris Disspain said that the various kinds of ccTLD managers who work through the ccNSO on developing ccTLD policies is an interesting thing because it proves the success of the multistakeholder model. He highlighted some of the future topics for ccNSO to work on such as IDN PDP, geographical regions, delegation and re-delegation of ccTLDs.

Questions were around the relationship with the US government and particularly the JPA and the IANA contract, the transition or as one of the audience called it the adoption from IPv4 to IPv6 and when it is going to happen (is there a date like y2k?) and what the end user needs to do to get ready; connecting the next billion and protecting children online and what ICANN can do in this area; governments involvement in policy development processes of ICANN.

Other Issues Related to Managing Critical Internet Resources

WS 24: Reforming the International ICT Standardization System

Moderator: Aslam Raffee (Open Source and Open Standards Standing Committee, South Africa)

Panelists: Sunil Abraham (Centre for Internet and Society); Bob Joliffe (Shuttleworth Foundation); Ashish Gautam (IBM India)

During this panel, there was discussion of some problems with respect to intellectual property and standards such as the lack of full disclosure, role of SDOs in addressing patent licensing and international standards that are overlaid on a diversity of national/regional IPR regimes.

Recommendations:

- financial transparency at all levels
- modernizing of processes, including enabling remote participation
- regulation of proportional influence of private interests – one company-one vote worldwide
- learn and adopt best practices of diverse practices of national bodies and other SDOs
- patent searches – for example, WIPO ISR, peer=patent CPR, national examiners' manuals should include standard database search

- return to full disclosure requirement
- adoption and clear display of IPR policies of committees (for example, OASIS) allowing easy distinction of degree of “openness” of standards
- process transparency

Suggestions for improving ICT standardization that emerged through audience participation at the workshop included:

- lower barriers to entry
- remote participation
- one vote per organization
- consistent IPR policy
- royalty free
- open process

WS 38: Around the World in Eight ccTLDs

Organizers: The workshop was co-sponsored by the four Regional ccTLD organizations covering Africa (AfTLD), Asia Pacific (ApTLD), Europe (CENTR), and Latin American (LACNIC)

Panelists: Rajesh Aggarwal (Nixi, Additional CEO, India); Gihan Dia (Professor at the University of Moratuwa, CEO of the LK Domain Registry and Chair IDN Task Force, Sri Lanka); Paulos Nyirenda (National Coordinator of the Malawi Sustainable Development Network Programme, Malawi); Sabine Dolderer (CEO of DENIC, Germany); Olga Cavalli (Technology advisor of the Ministry of Foreign Affairs of Argentina); Dr. Alberto Pérez Gómez, (Deputy Director for International Relations of Dominios.es and RedIRIS [Spanish National Research and Education Network], Spain); Roelof Meijer (CEO of SIDN, Netherlands); Erick Iriarte (General Manager of LACNIC, Legal Advisor of '.pe', Peru)

Building on the ccTLD workshop at the IGF 2007 in Rio, the goal of this year's workshop was to expand the concept of best practice exchange and showcase the diversity of country code Top Level Domain (ccTLD) policy models around several topics that concern all ccTLDs. Eight ccTLDs from four regions were chosen to talk about seven topics.

There are all in all more than 240 ccTLDs, each of which is contributing to the country's national identity on the Web. A striking characteristic of ccTLDs is the variety of their policy models. The workshop aimed to present the regional and political diversity along a number of tasks that are important for the work of ccTLDs.

The presentations highlighted the challenges that each of the ccTLDs face.

International Domain Names, for example, are very important for multilingual countries such as Sri Lanka. Yet, the capacities that can be mobilized for implementing IDNs are limited and progress is slow.

ccTLDs can help to increase computer security as the speaker from Spain demonstrated. Examples were the promotion of the Sender Policy Framework (SPF) to avoid forgery of the sender address or the introduction of DNSSEC.

The business continuity of ccTLDs depends on redundancy in all the (technical) areas covered by a ccTLD such as the registration and resolving function but also customer services. The managing of security as well as financial and organizational stability also play a major role.

The introduction of IPv6 from a ccTLD perspective was presented as a step-by-step process.

For ccTLDs in developing countries as diverse as India, Malawi and Peru, the main challenges are the implementation of both stable and legitimate governance structures and the management of growth. The latter issues were also subject of the discussion that followed the presentations. Questions from the audience concerned issues such as how to manage growth and how to balance growth with maintaining a high quality of service.

WS 40: The Evolution of the Root Server System

Panelists: Desiree Miloshevic; Nurani Nimpuno (Autonomica); Akinora Maemura (JPNIC); Paul Wilson (APNIC); Steve Crocker

The purpose of this root server system workshop was to explain to people what the root server system is, how it functions, why it is important and how it is evolving. It is meant to be a short tutorial on these subjects, with opportunity for interaction with the audience.

A similar tutorial was offered at IGF 2007 in Rio de Janeiro. That first workshop was very well attended and questions from the audience were serious and useful for clarification. Given the evolution of the system since then, as well as the significant change in venue from Brazil to India, it was felt that a revised session would be of interest to participants in Hyderabad.

The root server system is, of course, an essential part of the domain name system. It is essential in resolving domain names, and therefore, if we're going to use domain names, we have to have a root server system that works, works well, works reliably and does not fail. It is the most critical piece of infrastructure for the domain name system.

The first speaker, Desiree Miloshevic, described the history of the root server system, starting with Host.txt files created and maintained by Jon Postel. While such an approach worked for a limited size network, it represented a single point of failure, which was remedied by the creation of the DNS by Postel and Paul Mockapetris. She then defined the terms used in the domain name space and the history of the creation of the 13 independent root servers. She clarified the myth that root servers channel Internet traffic; some people, when they hear the word 'root server system' and are not necessarily English speakers, spell root R-O-U-T-

E, as opposed to R-O-O-T. Unfortunately there is enough semantic proximity between the function of the DNS and the routing of packets through the Internet that this is a plausible error, but one that has the potential to lead to a fundamental misinterpretation of how the DNS works. Finally she talked about caching properties of the DNS, which limit access to the root zone (and secondary and other zones as well), thus limiting traffic to the servers to a scalable level.

Nurani Nimpuno, who works for Autonomica which operates the I-root server, provided a thorough description of the root server community. She stressed both the functions that the root server operators actually do, and those that they do not do, stressing the common misconceptions that exist about the group. She stressed the informal, cooperative nature of the group, their tight engineering cooperation, and their relation to ICANN. She discussed in detail the deployment of the Anycast protocol, its many advantages and some of its disadvantages. The role of the regional NICs was described as very important in deploying Anycast servers to the regional Internet communities, a subject expanded upon by Paul Wilson in his talk (see below). The issue of attacks upon the root server system was described, and system monitoring processes were outlined. She concluded with a number of future issues that the root server system would face, a subject elaborated upon by Steve Crocker in the final presentation (see below).

Akinora Maemura represented JPNIC, which operates the M-root server. Among other things, he discussed the critical issue of the readiness of the root server system to provide IPv6 support. He discussed some of the details of different strategies and funding mechanisms of Anycast by the root servers that propagate them. He described the features of the M-root and its future plans, and showed in some detail charts of the traffic encountered by the M-root, both from IPv4 and IPv6. He noted that all root servers are now being made ready to support DNSSEC, and discussed the issues that are still open and contentious with respect to its ultimate deployment at the root level.

Paul Wilson discussed the development of root server hosting capability in Asia, and focused on, inter alia, the APNIC's role as provider of training, consultation and expert services for countries in the region. During the past few years, adoption of the Anycast protocol has allowed a proliferation of root servers in many areas of the world where Internet traffic is growing rapidly. Since the number of Anycast servers has no practical limit, adoption of the protocol by organizations willing to run such servers provides the possibility of a proliferation of root servers where they are needed to satisfy local demand. Further benefits of having additional root servers are that DNS services become more robust and user response time can decrease substantially. These benefits accrue mostly in developing countries, where external capacity may be limited and latencies may be significant.

Finally, Steve Crocker talked about the two major dimensions of evolution of the root server system, namely IDNs (Internationalized Domain Names) and DNSSEC. First, IDNs are probably the most important addition to the DNS since its inception, since the majority of potential users of the Internet who are not there yet use languages not based upon the Latin alphabet. Both the IETF and ICANN have done

a lot of work to devise a method that would allow IDNs to map into the existing domain name system, and there are now initial implementations in a testing phase. Second, recent attacks upon the DNS have reinforced the need for additional protection for the identity of root servers, as well as for secondary and other servers in the domain name system. DNSSEC provides a method of protecting server identities by using cryptographic methods to sign the servers, providing certain recognition of authentic servers at any level. DNSSEC is now in the initial stages of deployment, so that it is important for both the user community and the ISPs and other technical personnel to understand what it is, how and when it is likely deployed and what the remaining issues are with its deployment.

Dynamic Coalition on Open Standards

Speakers: Thiru Balasubramaniam (Knowledge Ecology International); Aslam Raffee (Open Source and Open Standards Standing Committee, South Africa); Denis Direito (National Institute of Information Technology, Brazil); Rishab Ghosh (UNU-MERIT, Maastricht, the Netherlands); Laura Denardis (Information Society Project, Yale University); Eddan Katz (Electronic Frontier Foundation)

The Dynamic Coalition on Open Standards (DCOS) was created at the Athens Internet Governance Forum (IGF) in November 2006. Our mission is to provide government policy makers and other stakeholders with useful tools to make informed decisions to preserve the current open architecture of the Internet and the World Wide Web, which together provide a knowledge ecosystem that has profoundly shaped the multiplier effect of global public goods and improved economic and social welfare.

Membership in the IGF DCOS is open to anyone who supports our Mission (<http://www.dcos-igf.org/mission>) and our Principles (<http://www.dcos-igf.org/files/dcos-open-standard-principles.pdf>).

At the third session of the Hyderabad IGF, DCOS held two workshops and one open workshop. A tangible outcome of the Hyderabad meeting was the production of the “DCOS Hyderabad Statement on Procurement in Support of Interoperability and Open Standards,” which can be found here: <http://www.dcos-igf.org/documents/45-documents/54-hyderabad-statement-3rd-igf-2008>.

At DCOS' open meeting held on December 4, 2008, panelists presented a proposal on a procurement agreement on interoperability and open standards, detailed national experiences from South Africa and Brazil on promoting interoperability and open standards, and a document on a public protocol for the exchange of public documents (based on the Brasilia Protocol of 2008). The draft procurement agreement presented at Hyderabad was intended to serve as a basis for governments, businesses, non-profits and individuals to sign as contracting parties; this multistakeholder draft agreement echoed the founding principles of the Athens IGF which called for active, multistakeholder participation in dynamic coalitions. The

Brasilia Protocol is a national agreement between a wide range of state and private entities to use the Open Document Format for interoperable communication within the country.

Deliberations on the draft procurement agreement, the public protocol for exchange of public documents, and the Brasilia Protocol along with the rich discussions that followed at the third IGF in Hyderabad culminated in the “Dynamic Coalition on Open Standards (DCOS) Statement on Procurement in Support of Interoperability and Open Standards.”

Part 4 – Future Challenges and Next Steps

Chairman's Summary of Main Sessions

Emerging Issues

The session was entitled “The Internet of Tomorrow: Innovation and the Evolution of the Internet.” This session was chaired by Mr. S.V. Raghavan, Professor and Chairman, Computer Science Department, IIT, Chennai. The session was moderated by Mr. Jonathan Charles, BBC Foreign Correspondent and News Presenter, and co-moderated by Mr. Stephen Lau, CEO of EDS.

The session was introduced with the goal of addressing topics that had not been discussed in the IGF to date. The moderator asked the participants to propose and discuss issues the IGF should consider in the next year at the IGF in Egypt and beyond. These topics should fit with the five themes of the session:

- The growing popularity of social networks and user-generated content.
- The impact of policy frameworks on creativity and innovation from an entrepreneurial perspective.
- The policy challenges and frameworks in ensuring an “Internet for All.”
- The impact of the global nature of the Internet on jurisdiction and legislation.
- The policy challenges to providing an environmentally sustainable Internet as the network reached the next billion users.

The moderator also suggested that content would be a big issue, and asked what were the big issues for digital content. Another issue that was brought up was the effect of regulation on the Internet. This was an issue coming to the table in other forums and the IGF should be careful to watch how these discussions developed.

One of the perspectives taken by speakers during the session was to look at the situation with the last billion. What would be the conditions under which the last billion would be added to the Internet community? An issue that was raised concerned the global recession and its effect on reaching the next billion and the billions beyond. Other political trends that were mentioned as having an effect on the Internet included regulation, protectionism and nationalism.

Several speakers mentioned the subject of sustainability, one of the emerging issues brought up in the Rio meeting. A mention was made of the pivotal role of the early Internet of the 1980s in that it allowed researchers to initially realize the effects of global warming. They started using the Internet that was available to them within the university networks to share the data. And it was the possibility of sharing these massive data sets and running these models through the Internet that actually led to the creation of the Intergovernmental Panel on Climate Change.

One analysis that was given included the need for the sustainability issue to move beyond the first order notions of green IT to the second order where the indirect

effects were considered. This would concern the role of the Internet community and the ICT community in terms of looking at how they could support other sectors such as energy, transportation and other civil infrastructure, and how they could help those sectors become far more efficient, and more environmentally sustainable. The analysis continued to a third order that would involve a real transformation of society. The speaker asked the IGF to consider what would happen if we did not respond correctly to issues of climate change. It was too big an issue to get wrong and the Internet had an essential role to play. To achieve this, the IGF would have to become less self-referential and needed to get involved in making the world more environmentally sustainable.

A speaker recalled the Geneva WSIS Declaration of Principles and the goal to build an inclusive, people-centered information society. The challenge of the next billion and the last billion would be very different from the first. These next and last billions would be more marginalized and include poorer sections of society. It would not be technical issues that would be the key problem. In general, the issues of these next billions would be very different and giving them consideration was an emerging issue and a challenge in itself.

The Chair noted the Forum should consider new pedagogical models; how to teach tens of thousands of people at the same time, utilizing the opportunities of ICTs. We lacked understanding of how to utilize the technology in addressing these issues. Others noted that bandwidth and technology were not an issue, but how they were managed was. Increasingly networks were available but they were not affordable and so not accessible to all.

The session was shown a video from the Council of Europe which launched an idea for a new multilateral treaty on certain minimum principles, including positive obligations to ensure the ongoing functioning of the Internet. A new treaty would promote solidarity and cooperation between States and underline the public value of the Internet beyond commercial interests, in full respect of international law, including human rights law. Signing up to a new multilateral treaty which ensured the functioning of the Internet would be of fundamental importance to keep the Internet open and free in the interest of future generations.

One panelist stressed, however, that the IGF should aim to strengthen existing agreements and treaties rather than going down the road of creating yet another treaty. She made the point that there were over 70 multilateral environmental agreements alone. The challenge was not having another treaty, but making existing treaties work. She also argued that the IGF should be considered as a model in itself rather than being sort of a formal structure or treaty-oriented forum. The IGF was a forum that was trying to find a new way of networked governance, soft governance, to come to agreement outside of some of the traditional silos that existed in treaty processes.

The co-moderator gave his reading of the previous days' discussions and, in summarizing the session, noted that sustainability and trust were two essential factors. To reach the next or the last billion, sustainability in terms of access to

information, sustainability in terms of respect of the information flow and human dignity was required, as well as sustainability in terms of cyber-security, privacy and building trust. He identified trust as the key term; without a trusted environment all other issues were much less valuable. The co-moderator also noted the need for breaking out of acting in “silos” and for communicating with each other. In this way, the IGF could be a portal for such communication.

Reporting Back

Reports were received from a number of regional and national IGF initiatives, other related events and other meetings that took place during the Hyderabad IGF.

A European Dialogue on Internet Governance (EuroDIG) was held in Strasbourg on 20-21 October 2008. The meeting focused on European perspectives and at the center of discussions was the notion of fostering security, privacy and openness. The meeting wanted to produce some agreed outcome but without negotiating texts, and developed a format with “Messages from Strasbourg,” with reports produced by editors on different topics discussed at the meeting.

The representative of Italy noted the Forum was important not just as an annual event but as a continuous process. Italy organized national IGF consultations in 2007 and 2008, centered on principles of rights on the Internet, and offered to convene a meeting of all dynamic coalitions in an event that would be organized in Rome in the middle of next year.

An IGF in the Latin America and Caribbean Region was held in August 2008 in Montevideo. The meeting discussed issues of participation in the IGF process, and also held multistakeholder panel discussions on the main IGF themes.

In the United Kingdom a national IGF was set up. The UK IGF process put a big emphasis on best practices across all the key IGF issues. It also led to the development of a crime reduction partnership. The speaker noted that perhaps the most significant development in the IGF process in 2008 was the spread of national and regional IGF initiatives.

Two African initiatives were presented: an East African IGF (EAIGF) was held in Nairobi, Kenya, in November as a three-day meeting. The EAIGF brought together outcomes from national meetings held in Rwanda, Tanzania, Uganda and Kenya, and online consultations organized by each of the four countries. Another initiative took place in Dakar, Senegal, in October focusing on West African country issues for Internet governance in general and the way forward to IGF. These and other African IGF-related events are expected to continue in 2009 in the lead-up to the IGF in Egypt.

The launch of a new Dynamic Coalition of national and regional IGFs was announced.

The Forum heard a report from the dynamic coalition on an Internet Bill of Rights, which held two events in Hyderabad. The coalition has created a new forum for participants from all dynamic coalitions to exchange ideas, discuss and coordinate their interests. The coalition also recommended that principles of rights on the Internet be a major theme for the 2009 IGF meeting.

Organizers of all workshops and other meetings were then reminded that they should file a report of their meeting, and that when allotting slots for meetings next year, those who did not report on their meeting would not be given a slot in 2009.

Taking Stock and the Way Forward

The session was chaired by Mr. Nitin Desai, Special Adviser to the Secretary-General for Internet Governance and Chairman of the Multistakeholder Advisory Group (MAG). The Chair noted the session should attempt to address three questions.

- First, to consider the IGF itself, the format and modalities of the Forum going forward. The IGF had now reached a stage where participants had to ask themselves what to take away from the IGF. Did the structure and format allow to take away what was needed, bearing in mind that the IGF was not a negotiating forum?
- Second, were there suggestions for the 2009 IGF meeting that the MAG should consider in terms of substance of the agenda.
- And thirdly, consideration should also be given to the review of the desirability to continue the IGF beyond its initial five-year mandate.

There was a general feeling that the IGF had evolved over the past three years. The point was made that to address the needs of the next billions the issues needed to be relevant to them.

Participation was identified as a critical issue for the forum by many speakers. These comments linked back to the prior message about the relevance of the Forum's agenda, which should be explained in terms of what were people's primary concerns. Other speakers also noted the challenges of engaging important groups, for example parliamentarians, young people or broadcasters who had not been widely engaged in the IGF to date, while also remaining mindful that improving gender balance should be a goal.

It was also noted that the IGF had matured and had become a space where difficult issues could be addressed. The respectful and informed discussion about critical Internet resources that had taken place in Hyderabad was mentioned as an example in this regard. In general, speakers were supportive of IGF's multistakeholder environment, and while some recognized that it meant there would be polemics, the opportunity to learn from each other and share ideas and points of

view was valuable. Others noted that increased funding for the IGF was important if it was to be more predictable and viable.

There were references made to the goal of focusing on attempting to narrow differences through discussion and dialogue. It was suggested that the philosophy of multistakeholder engagement was finding favor in other processes. Increased comfort with the multistakeholder model was also an output of the IGF.

One speaker mentioned the recent meeting in Rio de Janeiro which resulted in the Rio Pact to prevent and stop sexual exploitation of children which consisted of a declaration and a plan of action. He mentioned this as an example that it was possible to reach an agreed outcome in a multistakeholder environment if there was political will to reach meaningful conclusions to tackle problems that were of global importance.

The IGF Secretariat provided an overview of the anticipated schedule for the review of the IGF. The Tunis Agenda asked the UN Secretary-General to make a recommendation to Member States within these five years. This meant that the General Assembly would have to take a decision in this matter at its session in 2010. The report with the recommendations from the Secretary-General needed to be ready in early 2010 so that the General Assembly would be in a position to take a decision. The report would be considered first by the CSTD in May 2010 and then by ECOSOC in July 2010. From ECOSOC the report would go to the General Assembly, which would decide whether or not to continue the forum in December 2010. In order to meet these deadlines, work on the review should therefore begin early 2009. The review process proper would be brought to fruition at the IGF meeting in Egypt in November 2009.

In summing up the session, the Chair held the view that the IGF had so far succeeded in reducing people's apprehensions and concerns. There was now a much greater sense of trust. There was a focus on searching for consensus, on trying to narrow differences through the IGF processes of discussion and dialogue, not with the intention that the IGF was going to become a decision-making forum, but that this process of dialogue and discussion helped in reaching decisions elsewhere.

He asked the question whether it would be possible to find consensus in certain well-defined areas where a process had succeeded in narrowing differences. Would it be possible to come up with something, which carried a certain legitimacy because it had come from a broader multistakeholder process in which the people who had ownership were not just governments, but governments, service providers, industry, NGOs and many others? It might be done only in a few areas, like for example child pornography.

In concluding, the Chair emphasized the uniqueness of the IGF as a multistakeholder space for discussion. The IGF was important because many of the issues that it addressed were not being discussed anywhere else. Segments of the IGF main themes were being discussed elsewhere, but they were not addressed in their totality anywhere else. It was the comparative advantage of the IGF to bring

these different threads together. The IGF was discussing terms like access, diversity, security, openness or critical Internet resources not as purely technical issues, but in terms which were more in the province of social, political or economic analysis. Access, for instance, could not be discussed as a purely a technical issue. It needed to be addressed like other basic issues of society, of politics, of economics. It was therefore important to fully engage those whose primary interest was the use of the Internet and to say that the issues the IGF was discussing were relevant and salient for the users' interests and concerns. This, incidentally, was how Internet governance was interpreted in the report of the Working Group on Internet Governance (WGIG), and this was the reason for having the IGF.

Panel Discussion on Emerging Issues

Chair : Mr. S.V. Raghavan, Professor and Chairman, Computer Science Department, IIT, Chennai

Moderator: Mr. Jonathan Charles, BBC Foreign Correspondent and News Presenter

Co-Moderator: Mr. Stephen Lau, CEO, EDS

Panelists:

- Mr. Herbert Heitmann, Head of Global Communications, SAP AG
- Mr. Ian Peter, Internet Governance Caucus Co-coordinator, Ian Peter and Associates
- Ms. Heather Creech, Director, Global Connectivity Program, International Institute for Sustainable Development

Extracts from the Transcript of Proceedings

Introductory Remarks

JONATHAN CHARLES:

Welcome to our session on emerging issues. What we're going to discuss is what are the issues that are really going to dominate in not just the next year, but the next few years, issues some of which we may have discussed over the past few days, other issues that we haven't discussed. We're looking from this session for a lot of bullet points. Now, those are partially going to be things that fit in with our five themes:

- the opportunities and challenges associated with the growing popularity of social networks and user-generated content
- the impact of policy frameworks on creativity and innovation from an entrepreneurial perspective
- the policy changes and frameworks in ensuring an Internet for all
- the impact of the global nature of the Internet on jurisdiction and legislation
- policy changes to providing an environmentally sustainable Internet.

These five areas were raised during the preparations for our meeting here in Hyderabad. But then there are other issues. Let me throw a couple out now.

- We all know there is a credit crunch. What is that going to mean for the Internet?

What's it going to mean for investment? What's it going to mean for the new era of regulation? We seem to over the past three months have moved very swiftly from a free-market capitalist era to one where governments are talking more and more in various areas of the economy about regulation. Is that new mood of regulation going to affect the Internet?

- What about content? What are the emerging issues for digital content? I'm a broadcaster. We're pretty sure there's going to be a growing demand for high quality material that only broadcasters with their resources can provide. But for other people, the UGC is the only way forward. How are these issues going to work out?

I'm going to introduce our panel as we go along. Let's start by hearing from our chairman, S.V. Raghavan.

S.V. RAGHAVAN:

It's been a long journey for me personally, looking at interconnection not in a machine sense, but also in a people sense. Because way back in the beginning of the '80s, India started thinking about introducing communication and then came up with the ubiquitous e-mail system as the first application. Over a period of time, as you all know, as technology advanced and bandwidth became available at every place in the country, things started moving from simple electronic mail to the current social networks and exchange of information in all digital format between people. Many interesting things happened during this time. There are commercial concerns, there are societal concerns, there are cultural concerns, there are legal and environmental concerns. There are also the sustainable ecosystems that you need to develop to not only establish the network, but also to grow and be in tune with the requirements of the people, as well as the possibilities that technology provides.

In the '80s, we thought we had a grand challenge and we have solved it. We were wrong. In the '90s, we thought it was a grand challenge, introducing the Internet. We were wrong. In 2000, the new millennium, we thought we have solved the problem. Here again, wrong. What is happening today in Indian terms, if you look at Gandhian type of cooperative investment in bandwidth, it costs one US cent per person per day of investment to get a gigabit of bandwidth to every hut in every village. That's all it costs. The question is, who will do it? It's not a social obligation, explicitly stated. It is not a commercial venture that will be possible because you put things up front. So you look at a cooperative venture. You find that if you drop in one cent for 10 years, you have fiber. Technology makes it possible.

Bandwidth is not an issue. Now, managing this bandwidth is an issue. Cross-boundary interactions, whether it is a commercial transaction for electronic commerce, or for content being made available elsewhere, become serious issues all of a sudden, and the legal system has to catch up. The bandwidth is only the functionality part. Then the users establish the utility of the whole thing. Then the legal part comes in. Then you have the digital forensic part, in case of disputes. And then the resolution, with the judiciary system. And when it crosses boundaries,

especially sovereign boundaries, issues become more complex. So these are issues that are emerging, because the possibilities are also expanding.

On the content side, human beings haven't had experience of two things. One, simultaneity of events. The second, collapsing of distance. We are limited by the 120-degree, right-in-front-of-you comprehension. That's the ability human beings have developed over time. Suddenly, you have the ability to see things which are beyond this horizon, beyond what we are trained to find. So that makes a challenge for a growing population. Ten years from now, what we want the population to be across the world will become an issue. We have to think about what kind of content we make available and how effectively do we make available.

I am saying this especially because most of the discussions center around how effectively to use the bandwidth and how effectively to use the technology and how high resolution things can be done and transported. To me, as a technical person, that has become a nonissue. If you want to teach 10,000 people simultaneously, there's a pedagogical issue. I haven't learned the art of teaching 10,000 people simultaneously with interaction. The BBC people have mastered the art of reaching 100 thousand or 100 million people simultaneously, but without interaction. It is that interaction and the pedagogical model that's going to make a huge difference. Because only when do you that you are reaching the last citizen, which we talk about in the Internet world in terms of access.

Technology is not the serious issue. More and more will become available. Wireless will become gigabit-capable. Fiber will become terabit-capable. The cost is not the serious issue. The way you utilize the entire thing will become the serious issue. The way you enable the utilization will become a serious issue. The way you make it sustainable by making the successive generations understand and progress and think will become a serious issue. I would like the panel to deliberate on these things and then see what should be our far-reaching legislations, our far-reaching policy directives, our far-reaching community understanding in driving the Internet from the way it is to the way it should be in our perception.

Presentations by the Panelists

JONATHAN CHARLES:

The next speaker is Ian Peter, who is coordinator of the civil society Internet Governance Caucus. He's also an Internet analyst and management consult. Ian, I think you want to talk about reaching the last billion as an emerging issue.

IAN PETER:

I think it helps in examining subjects like this to, as best we can, pull ourselves away from your immediate environment and look into the future, and see if we can identify some of the issues and some of the factors that we are going to address. To me, the next billion is going to happen, and happen very rapidly. It will be over perhaps by the time we meet again. But the last billion, well, it's going to take some

time. The first billion took 20 years, as was pointed out. I think by the time we get to the last billion, we have some difficulties and that might take us out another 20 years. So in order to do so, I'd like to welcome you all to IGF 2028. The IGF 2028 meeting is taking place in Reykjavik, Iceland. I'm participating virtually from Australia on a high-definition conference link.

When I'm talking about the last billion, I should say that we're not talking about the last billion of the world's population. I think we can leave out everybody who arrived yesterday and/or probably everybody under the age before three. But we do start to pick up at the age of about three or four, as I know from my grandchildren, who hop on the Net and play games. So we do have three- and four-year-old users. I guess there are a number of people who simply don't want to have anything to do with that. So that's okay, too, I'm excluding that. I'm including in the last billion people who see there is advantage for their family, for their children, to be connected here and all the advantages that other people have from the Internet, they want them. So they're in and we're trying to deal with those.

Let's get a profile of where they are, as best we can. Quite a few of this last billion are in developed countries. They are in rural pockets, which have not been connected and are very hard to connect. In countries like Australia it could be the remote indigenous communities who are amongst the last billion. And we have urban poor in developed countries who also will be part of that last billion. But to a large degree, the last billion will be those who are slower in adopting at this point in time, and will still be so. So there are areas on the planet that will need higher concentration than others in order to bring the equity that does derive from all of us from having access to this thing. Quite a few of the last billion won't be able to read or write. That won't be a problem for them because a lot of the uses they will have will be around gaming or around downloading videos, music, these sort of factors. So that's not a problem but it is an interesting factor because then the tool for literacy that exists with the Internet starts to come to the fore. And the other factor that comes in with the last billion that's very interesting for us is multilingual. By the time we get to the last billion and some of the languages we have to deal with, it starts to become quite complex.

Let's talk about the devices we use with the last billion, and very few of them are going to be computers. Most of them are going to be mobile devices. We are going to be in a mobile world. And some of these devices will be mobile phones, some will be what we used to call PDAs and all sorts of smaller devices, but the computer won't be amongst the dominant devices at that point in time. That raises fairly interesting issues, and we will come back to those as we start to talk about infrastructure and so on. But as I said before, some of the dominant media we use at this point in time will not be the dominant Internet media with the last billion. The concentration will be more towards what our kids do, which is the downloading, the texting, the games.

Let me talk about some of the issues and try and structure this a little bit. And I am not going to paint the whole picture, but perhaps raise some questions and some

ideas which are a part of the picture for you to fill in yourself and see how you think we ought to address some of these things.

Now, why are we in Reykjavik, Iceland? We are in Iceland because Iceland is the fastest growing Internet economy on the planet. Iceland has jumped ahead because of the major project underway to create the carbon-neutral Internet. Iceland's vast geothermal resources have been put to use, and major server farms – in fact, most server farms in Europe and a lot of government data centers in Europe – have all relocated into Reykjavik to get near the geothermal thing. Other areas of the world with good renewable energy resources have also jumped ahead, too. So there is a great new economy and a great number of new possibilities arising from this. Some of the other features that we'll see is most of us will have our biodegradable mobile phones. We have started with the carbon-neutral Internet to address the major problems of junk. In getting to this carbon-neutral Internet we have started to create a vastly different architecture and start to really use the way that the Internet works in a vastly different way.

Let's talk about the infrastructure to get to the last billion. It's probably about six times what it would be at the moment. The high-end users of Internet bandwidth at this point of time are using 10,000 times the bandwidth of the low-end Internet user. So there's a vast discrepancy. And what is going to happen is more of us are going to move to this level of Internet usage, and this will happen more and more with Internet TV and downloading Internet videos, particularly in developing countries. So 60,000 times the current capacity might be needed, and I would say conservatively we are definitely looking at 10,000 times the current capacity by 2028. That has a number of ramifications for the way we do things.

I mentioned video. We are not just talking about the recreational video and YouTube downloads, we are talking medical video, the high-image conferencing which allows me to participate from Australia. This creates a number of issues. One of the issues here is shared infrastructure. Is every telco, every ISP, going to roll out parallel infrastructure across every country to try and do this? Or are we going to look at shared infrastructure models to create efficiency and to create this global network which we need? How are we going to cope with this vastly bigger issue? And what's this going to look like?

Let me give you a couple of ideas. First of all, we are looking at the mobile Internet to a very large degree. Now, back in 2008, the mobile device was a strange hybrid. It used non-Internet standards when it connected by voice, but some of the cheaper ones went over to what is called Internet standards, and then there was Internet standards for dial-up, and other standards being introduced, and there was quite a bit of mess. This eventually led rise to the new standards institution which was created in about 2010 which was the IETF TU. The IETF TU looked to harmonize all the standards which were going on in the Internet area and telephony area to create this big globally connected network. The major work of the IETF TU was the workshop which was trying to reduce the number of standards to less than 10,000. And this was consuming a lot of energy as people started to try to get this to a workable number of standards.

However, there was the new organization which had just arisen – the III, or Internet Intersect Initiative. This was sort of like the WWW. The IETF was far too old, far too staid. It didn't get it, and a lot of innovators had moved to the III. The III was looking at a clean-slate approach, and many of the users were starting to use the III standards and the new III network. The III network had all these wonderful applications and became the platform for innovation because the other platform had got to the stage where innovation was becoming more and more difficult. And some of the people there remembered the thoughts of Robert Kahn at the IGF way back in 2007 who started to say the Internet standards and the Internet standards body are starting to ossify and become not capable of handling new areas of innovation.

So what does our governance look like in 2028? Well, it would defy all known management logic if the current structures in their current form were able to cope. They won't. By 2028, things will have been changed. Things will be moving very fast. I think the new motto which, because of the pace of all of this adoption, will be "If it's about to break, fix it." And that will be the dominant motto by which we start to look at the emerging governance models.

One of the interesting questions around this is going to be jurisdiction. It will still be an issue. And we are living in lawyers' paradise. Internet is the lawyers' paradise where various countries all think they have jurisdiction of various sorts over the same domain name, where privacy issues and all sorts of issues as to who should do what are all out there. We have industry self-regulatory regimes start to go spring up, but governments are also setting up their regimes. Do we have an industry self-regulatory regime dealing with most of these issues or do we have a government regime separately? What is the structure that is going to deal with these tremendous emerging issues around intellectual property and privacy and individual rights and human rights and the content that's offensive in one country but not offensive in another? How are we going to deal with all of those? So as I say, I think we are in lawyers' paradise as we start to deal with these jurisdiction issues.

I hope 2028 provokes you to start to think. If I just summarize that very quickly, the areas where I think we have issues is how we deal with climate change and environment issues, how we deal with infrastructure, how we deal with access, how we deal with ossification and standards, and how we deal with governance as we go forward.

JONATHAN CHARLES:

Ian, thank you very much, indeed, for painting a very vivid picture of 2028. What about issues from the commercial point of view? Let's hear now from Herbert Heitmann.

HERBERT HEITMANN:

This whole forum is about providing Internet for all. Business usually goes after the low-hanging fruits, and they will be more likely among the next billion than the last

billion. On the other hand, innovation requires changes. And these changes clearly are in the field of the last billion. While I do believe there is kind of a constant exchange between new efforts, research and approaches to reach the very last billion, I think it's important that it's the last billion who want to have access to the Internet. We don't want to force anybody to be happier than they are. But here in this area, I think there is certainly lots of need for creative approaches which can only be done in an environment similar to this here where all different kinds of stakeholders come together on an equal footing and first of all can share the challenging and collectively work on a solution here. These solutions for the last billion, that I am convinced of, will heavily contribute to even more affordable and proper and stable solutions for the next billion. This is the usual way how innovations push and influence the mainstream.

But there is another area impacting us probably even stronger and this is what you mention, global crisis. Right now it still is more like a virtual crisis. I am concerned that when we come together at the next IGF in Cairo it's a real crisis, real recession, because right now it's just the cash that doesn't flow. When the demand is gone, we are looking into a completely different picture here. This is therefore most likely that private investments in ICT and other areas will rather decline than grow. We come out of a double-digit growth environment, and this is very new approach for us. At the same time, we can see that regulation, protectionism and to a certain extent nationalism is quickly getting back into fashion, which I think is a very, very concerning development. However, I think the public sector has a unique opportunity in this situation.

In the previous years, I often referred to the ICT readiness index, that the World Economic Forum puts together once a year, and you can see here there is a huge gap between the ICT readiness of governments and the businesses in the different markets. We have mature markets where the government is heavily lagging behind the economy and we have emerging markets where the government is leapfrogging. This is an opportunity, particularly for those who are lagging, to catch up, and to not only be an enabler user but also an exemplar, to use the ICT for all the benefits we are aware of. And I think here is an opportunity and it will also buffer the effects of this crisis that we are somewhat concerned about.

And business will have the opportunity to explore new business models that in the past were very challenging because the very same financial system that is now creating this problem was extremely reluctant to support moving into new models. What I am talking about is this whole notion of on-demand, consumption-based business models. Just to give you an example, SAP is a company which is pretty highly valued by the investors, and the triggering factor is how much software license we sell, which is up-front license sell, and that determines the value of the company. And the moment where we slightly try to change anything, there is an immediate concern and the value goes down so nobody touches this. Now, the value of our and many other companies of today is very significantly different than what it was prior to September. There's an opportunity to explore new business models there because you cannot get punished so heavily like it was in the past.

And it's also the customers certainly who in these times have much more interest in the kind of an on-demand, ongoing, consumption-based pricing model than these kind of up-front opportunities.

It's not just in the ICT industry. We see this in our, to use another terminology, old economy customer, the manufacturers. Hilti is a producer, the global leader of drilling machines, very heavy-duty materials. They, since quite some time, tried to move into a business model where, instead of selling drilling machines, they sell holes, and that means they serve their customers more, that they sell them or want them to invest in drilling machines. With the exception of a few private men, I think nobody has a desire to own a drilling machine, but many people need holes for construction, and this is what they want to sell. But to sell this, they need to become a service provider. And to do this on a global basis, they need to create a network far beyond classical supply chains. This network will be in constant transformation. This creates ecosystems of small, medium businesses at the local place of the customers. And all these kind of things very much depend on IT infrastructures, on the Internet, the Internet of things that was mentioned here, but also the Internet of service. And in academic terminology, I think it's the semantic Web which will heavily spur these kind of developments.

This is the big thing that from a business perspective we are waiting for. We are looking into, we are investing into, but also I see that the different government institutions are putting strong emphasis on this. This is clearly the way to go from our perspective. And convergence, which was a big topic at the OECD ministerial conference, which was and is a big topic here, is another adding element here. Critical is cyber-security, more than ever before. Affordable access and reliable networks, I think this is not a given but I trust that this will be a given, but it's needed. That goes without saying. And then what are the other emerging topics?

Sustainability is something which already today moved out of the marketing departments into the office of the CEO because it combines a couple of really important issues which affect us, but affect every business, every corporation. Compliance, the most risky way to be thrown out of business, and therefore, not having a sustainable business will be noncompliance, so this is a must. Education and access to talent is another critical element. And then this whole, depending on how you want to describe this, green notion, environmental aspect that in some industries plays a more prominent role than in others. It is very obvious that the public and also the debates here are very interested in green IT. I personally believe that even higher relevance is what IT can do for this planet to become green. The whole impact on efficiency, on careful use of resources by using IT, cannot be underestimated, and always needs to be put into perspective when we discuss green IT.

And last but not least, because this is mainly why we are coming together, on the policy framework side, the classical elements of policies, making the cash flow, credit affordable, taxation, appropriate also for industries that are new coming in the space of ICT, in the context of the stimulus packages, is a must. Intellectual properties rights will become more critical before, and mainly for the small business.

When you have this ecosystem, it's not the big giant who is establishing the ecosystem. That's the thousands of little partners who sit on that platform who depend on a proper protection system for the intellectual capacity and investments here. And I think this requires a collective effort and it needs to be done in a much, much more harmonized fashion around the globe here. We certainly, from a business perspective, cannot stress enough how important it is to continue to foster fair competition all around the globe.

And last but not least, what I want to stress here, even if this is the first IGF that I have participated in, but it was enough for me to experience, and I sense it needs to be experienced, that only such kind of a format where all the different stakeholders come together on an equal footing, and it's changed, not with the intention to have by everybody agreeable declaration at the end of the event, but really to have an open discussion, to learn from each other. And I have discovered so many new things by just participating in workshops and listening to discussions that this, in itself, I think gives a tremendous value. And I only hope that we can continue this and further advances. And with that I would like to conclude my issues inventory.

JONATHAN CHARLES:

Thank you very much, indeed. And let's stay with one of the subjects you touched on there which is sustainability. Our next speaker is Heather Creech, who is from the International Institute for Sustainable Development. Obviously, it's the big, emerging issue as we look toward the next billion and the billion after that. How are we going to make it sustainable?

HEATHER CREECH:

My institute, ISD, has been around since 1990, which isn't that long a period of time when you are in the business of changing frameworks and mindsets globally. And so it's actually wonderful to sit here and listen to my two fellow panelists actually talk about everything that I'm about to talk about. You have, in fact, said many of the things that need to be said today. So forgive me if I go over some of the same territory, because it does need to be reinforced, I think.

Many of you will recall in Rio that sustainable development was identified as an emerging issue for the IGF. Here in Hyderabad, there has been a real focusing-in on – particularly on climate change as a driving issue for many of the people who are in attendance here. I think we are all in agreement that the Internet is the most important piece of infrastructure of our time and that it underpins our economies, our cultures, our communities. And it is also beginning to underpin our governance, how we understand, how we need to interact with each other in a much more networked way around the world. How the Internet is beginning to break down the silos between sectors. How you have governments talking with each other across regions. How you have governments working with the private sector, the engagement of civil society and so on.

Many of you may not be aware, in fact, going back to the early '80s, that the Internet was the key force in really unpacking the whole climate change challenge. This was a very interesting piece of history that is known in the climate change community but perhaps not so well-known here. What happened was that the scientists were beginning to do their models, recognizing that there were some potential real problems in terms of our greenhouse gas emissions and what that might do in terms of global temperature change. They started using the Internet that was available to them within the university networks to share the data. And it was the possibility of sharing these massive data sets and running these massive models through the Internet that actually led to the creation of the Intergovernmental Panel on Climate Change. Without that, we would not be where we are today in terms of trying to resolve the problem.

The second thing that happened was the emergence of the store-and-forward e-mail systems, the old FidoNets of the world. When civil society, when the NGOs began to listen to the scientists and pick up on the data, and when this started to become an issue for governments to negotiate around, it was actually the civil society community, the NGOs, working with the scientists who had better data than the governments themselves. And the governments acquiesced to the science community, to civil society and said, "Yes, you are right. Clearly, something is happening here." And that led to the negotiation of the UN Framework Convention on Climate Change.

We need the Internet. I think what this community here at the Internet Governance Forum perhaps could benefit from is moving beyond grappling with the immediate issues that it faces, institutional arrangements, technical issues around infrastructure, the issues of rights and privacy and so on, to really grappling with, why do we need to resolve these? What is the bigger picture here? What happens if we, in this room, don't get it right?

I'm tempted to put forward an alternative scenario to what my colleague mentioned, one which is rather more bleak called VIP Net, which is a world in which we have lost the battle on environmental issues, lost the battle on climate change, we've lost the economic battles, and the world has become restricted to a few elites using their own proprietary network to talk to each other and maintain their status. And outside of their little fortresses we have suddenly a world underwater, a world without clean water, a world with new diseases, a world with higher rates of infant mortality, a world of people trying to get by with basically nothing left, and the elites themselves restricted, with the elites themselves controlling all of the resources.

That's the dark side. So what is the role of this community in terms of ensuring and supporting those in the world who are trying to grapple with climate change issues, with issues around biodiversity, natural resource management, sustainable economies?

First of all, one of the things that I have noticed emerging out of this forum is a growing appreciation that these issues facing the IGF should be treated in a more integrated way. There is an incredible potential with the Internet of things in terms of

building sensor networks that will allow us to monitor how we are using our resources, what climatic impacts we're starting to see, how to monitor our flows of resources and so on. But we can't get to wireless sensor networks without having the transitions to new Internet protocols. We can't get to engaging every single citizen in monitoring their immediate environment unless we have access right down to the last person; the last citizen, as our Chair phrased it at the very beginning today. We have to get this right.

I think the second observation that I would make is we need to look a little bit beyond the green ICT debate. We actually talk a lot about first-order effects, second-order effects and third-order effects. First-order effects are direct effects, direct impacts, things that the industry itself can deal with in terms of getting energy efficiencies, in terms of managing electronic waste, those things that are directly within the control of the ICT industry. And industry is beginning to take this, quite legitimately, quite seriously. The fact that the ICT sector is moving sustainability into the office of the CEOs is an incredible sign of ownership and responsibility of this sector for its direct effects. But then we need to look at the second order, the indirect effects, and the role of the Internet community, the ICT community, in terms of looking at how it supports other sectors: energy, transportation, other infrastructure. How can we help those sectors become far more efficient, more environmentally sustainable? And then we have last the third-order effects, the real transformation of society. How does the Internet community, the development and deployment of the Internet, how can that serve to really begin to look at making this a project of every citizen in the world to take ownership of their environmental footprint?

The last observation I would make is the IGF is a wonderful forum, but from time to time it does feel a little self-reverential. And I think there is a need to take these issues and move them into other fora. There is a certain naivete in other fora about Internet issues. There is an assumption the Internet is simply going to be there. And we all know that there are risks and challenges as the Internet evolves that may change this. I think one of the things that we need to do in terms of moving our issues into other fora, in part, I'm thinking particularly of the climate change fora, is that we need to ensure that those fora get the incentive structures right, get the regulations right, that allows this community to innovative and to expand, and to ensure that this infrastructure is working in support of long-term sustainability.

JONATHAN CHARLES:

Heather, thank you very much, indeed. Well, in a moment, it's your chance to put your hands up and give us those bullet points on emerging issues. Before we go to you, I think our Chairman has just got a couple of things that occurred to him as a result of the speeches that we've just heard.

S.V. RAGHAVAN:

I'd like to point out that there are a few things that we do with Internet in a general sense. For human beings, entertainment, health, education are the three important

things, in that order. Entertainment includes gaming and cinema, as we see it. That's the most visible usage of Internet. Followed by health, because I worry about what needs to be done about my own well-being. If I am happy, if I am healthy, then I go for education. Anything else, and social networking, including e-mail and other types of collaboration, forms the other part. If we look at the media growth, both in the electronic and digital form, entertainment forms something like 85%. Education formed about 10%. And health, anything else, and social networking, formed about 5% in the past. When it came to digital and Internet world, entertainment forms about 50%. Health forms about 20%. Education is about 10%. And social networking and anything else is about 10%.

Even though we personally feel a lot of things are happening, in terms of accuracy of recording and accuracy of transmission and able to reach, as 2028 scenario put it, lots of things will get generated. But there are individual administrative domains through which these have to pass. And what we traditionally refer to as a quality of service is a necessary prerequisite for making sure that this direct visibility and distance happens when you do remote interaction. The quality of service is a well-understood term in technical terms, terminology in technical terms, but very difficult to practice by service providers and across administrative domains and across sovereignty. So what we need to look at are two types of management, one called regulatory management. Another one is called enabling management. In the enabling management, even providing an infrastructure as a proactive measure by the state is an enabling measure. Some people try to do that. In India, we are doing what is called a national knowledge network, establishment of that which is multiple 10 gigabit network at the core, moving to 100 gigabit next year. And what we call is a power line, minimum connection speed that you can have is one gigabit to come into the system. Climate change was the driving force for this particular application, because the kind of data that was exchanged. The second thing was high-energy physics.

But soon what is happening is, collaborative research is picking up. So new paradigm is emerging, tapping the synergy across the nation in what is called collaborative directed basic research. The body of people who will generate tomorrow's technology, they'll do basic research. But what is getting done is that they are directed. They're not doing on their own, but they are working towards a cause of a better tomorrow. Climate change is an ideal example. Nanoscience is an ideal example. They are working towards creating knowledge or a gadget or a device of tomorrow in a collaborative tomorrow. That requires this kind of interconnection. That requires across the public and private institutions. IPR becomes an issue, individuals become an issue, the ID becomes an issue, and all those things.

The second thing that is happening is, the innovation opportunity lies with people. The more and more individuals who come up with brighter and brighter ideas and they would like to practice them at large and convert them with appropriate business models. So combining innovation, which is resting with individuals, for the benefit of the society, and translating it into financial terms, that is again becoming

another challenge which countries are looking at. And when we talk about green IT most of the literature talks about when to start and stop the CPUs or the disks and so on and how to consume less and produce more. Another thing that's happening in green IT is, when you have these kinds of innovation put in, if I take this sheet of paper and apply pressure somewhere in between, that information is immediate and all of us can see it. But to show the same thing on a computer requires a huge finite element package to run on several CPUs and a huge amount of bandwidth to be transported and a huge, high-definition projector to show it in real time. You and I can see it incidentally. There is physics, there is engineering, there is image processing, recognition, rendering, all types of technologies are put in.

That is what we are trying to achieve. If we can reach a level where these things become possible, I think that the real benefit to society comes in. That's where the innovation which is resting with the individuals, by and large, if it can be harnessed together for society's benefit, that will be a challenge. Nobody knows how to do it. Limited environments, like corporations, they know how to tap the potential, how to package them in the current IP regimes, copyright regimes, and regulatory regimes. What is the new regime that is required to spur this innovation in every individual for the benefit of society is also a challenge. A forum like this, when it is summarizing what has happened in the past three days and then hand it over to the next IGF for deliberations, it would be ideal if we can come up with some solutions on how this innovation, individual synergy and collaborative directed basic research can be brought together for a realization of the 2028 of our friend Ian.

Discussion

JONATHAN CHARLES:

We've been talking so far about environmental sustainability. We've been talking about the issues with companies. We've been talking about multilingualism, the whole issue of semantics and where we're going with that. But there are many other emerging issues. And we want your bullet points.

FROM THE FLOOR:

I'm from the UK Children's Charities Coalition on Internet Safety and the European NGO Alliance on Child Safety Online. I think sometimes in this forum issues around child protection have been poorly understood or even at times misrepresented, I think, as being in some kind of necessary antagonism or opposition towards freedom of expression, privacy or some of the other fundamental human rights with which the IGF is absolutely properly and entirely correctly concerned. I don't see that antagonism or that opposition as being intrinsic or necessary at all. I work with children's organizations that strongly support exactly those same rights for children, just as much as we do for everybody else. And my suggestion is that an emerging issue we can take up at Cairo is integrating children's rights to privacy and freedom of expression into the broader agenda that the IGF is properly concerned with.

FROM THE FLOOR:

I'm a Member of Parliament in the UK. One of the speakers referred to the fact that some developing countries will jump over the technology. We can see it here in India with the mobile penetration that will soon become broadband penetration. That, I think, is introducing new vulnerabilities – child protection is the obvious one – where we have the technology but not necessarily the social policy or protections needed. And it could open new markets, which is a horrible word to use, to make our children vulnerable. And I just think that this is an issue that the IGC needs to look at to see how we can cooperate and support each other to make sure that where those policies and protections are in place, we can help each other.

The second point was to do with media and the information. The wonder of technology is that we have unmediated media now. I'm a cofounder of something called Women's Parliamentary Radio in the UK which is a Web-based radio. And it's great, because it means that I don't have to rely on the BBC to translate what I and my colleagues are doing in Parliament to a wider world. Fantastic opportunity. The other side of that is what we saw with the terrorist attack here in India, where Twitter was setting the agenda. What does that mean? We haven't touched on any of that at all. And I think there's a really big debate here which the IGF has to seize on.

FROM THE FLOOR:

I'm with UNESCO, the communication and information sector. I wanted to mention an issue that picks up on a number of comments that have been made throughout the last several days. That is access to public sector information, and particularly access to scientific information. Certainly we can all appreciate the importance of that with regard to climate change, environment, health. Additionally, access to scientific information, particularly publicly funded information, is important not only for the public to know about, but it stimulates research and development, entrepreneurship and innovation, all of the issues that we've been talking about today. It also picks up on another theme that we've had, which is the multilingualism. What better way to get local content out there and available?

FROM THE FLOOR:

I am from Algeria and working in Senegal for an NGO named Environment Development Action. I want to ask, how is it possible for us to talk about governance of Internet without linking with the conjuncture right now? Inequalities are becoming structural. They are now a big obstacle for the small processes we have started in slums, in areas completely outside the flow of information. The situation is going worse for billions of people. We have to take this as background of the strategies we want to develop.

Are we thinking that the Internet will change the paradigm if there is no vision of a new world, if we don't listen to the majority of people? They are not blind. They are not stupid. They have visions like us. The changes coming from the financial area will have an impact on our life, particularly for the last billion we want to reach. We

have not given attention to them, to their capacity to give vision for governance of Internet.

JONATHAN CHARLES:

That's structural inequality. Interesting point. Ian Peter, what do you think? Is it becoming structural?

IAN PETER:

Having reflected on what was just said, I wish I had spoken about more of that in my introduction as one of the realities that will still be there in 2028. I think there is structural inequality. I think there are issues to look at here. I think the Internet as a tool for development helps to overcome that. There are issues that need to be overcome that are outside of the constraints of what we can do within the field of Internet and Internet governance. But I do believe we can make a meaningful contribution to that.

S.V. RAGHAVAN:

The whole subject comes under what is called inclusive growth. The "inclusive" can refer to financial, geography, it can be literacy levels, it could be cultural. Whatever policy directives that one attempts have to keep all these factors in mind, because the difference in perceptions and difference in abilities will continue to exist. So I think the basic idea is to define things which are inclusive in nature.

FROM THE FLOOR:

I'm from the World Broadcasting Union. We began this week looking at the five and a half billion people who don't have access to Internet and asking how we can move to a situation where a lot more of them do access it. And part of the hypothesis is that by providing them with Internet access, we can help them with their material well-being and their life. I guess I just have a feeling in the back of my mind that things are not so simple as that. I think if you look what's happened in the last few months, you see how very important, actually, financial infrastructure is in all societies, in the West and the East. So I suspect that rather than having a circumstance whereby you bring Internet and that helps, as it were, to add financial infrastructure, you might have to add the financial infrastructure first. So it may be that it's not a simple matter of just talking about access. The umbrella issue is how we can improve the financial infrastructure, the availability of credit and so on. This is something which is done in India, but in many other parts of the developing world, not so. I just have a hypothesis that we shouldn't forget that financial infrastructure, credit arrangements and so on are absolutely fundamental to all societies. And without them, it may not be possible to bring Internet to those next five and a half billion people.

FROM THE FLOOR:

I'm from Nokia Siemens Networks. I want to comment on the gentleman who said financial system is very important. It's true. Financial system is important. But, in many parts of the developing world, it's clearly nonexistent. Or it may exist in the capital city and not much farther. And I think what ICTs can do, and the mobile world, which is quite strongly proliferating, even in areas where you don't have a functioning financial system, is allowing micropayment transactions, what we call M-banking. And I think you need to look at that as well as a future way of implementing a financial system in the absence of a banking system.

JONATHAN CHARLES:

We'll take some more comments on this. Because in the end, what have we seen over the past decade of the Internet development? We've seen banks willing to back what were often, on the surface, quite marginal projects in the hope that they would come good, and they could afford to do that. And I suspect those are exactly the sort of projects that have boosted the Internet over the past decade that are going to find it very difficult now.

FROM THE FLOOR:

When people talk about the Internet, they mostly mean the World Wide Web today. The emergence of social networks is bringing us to the next stage, where we have the Internet as an infrastructure, the World Wide Web as the connectivity of databases, and the social net, which is the interconnection of groups. I want to raise this because there is an issue that could be formulated as the governance of the social net. What are the rights of the members of the social network when you have 100 million? How are those rules established, like the right to retrieve your data? How can the social networking tools help things like the Internet Governance Forum work better, exchange and interrelate between the different forums that are emerging to deal with those issues?

FROM THE FLOOR:

I work with an NGO called Center for Science Development and Media Studies in India. And my concern is to see more active consultation in the next IGF on three areas.

One is trying to define what the commons are for the public. And when I mean that, when there is Internet infrastructure available, what is the kind of content that becomes accessible to the community that is useful for them to bettering their lives?

The second area where I would like to see more engagement is looking at the accessibility question, the people with different abilities and the way they are not able to be part of this governance space although there are tools to try and bring them on board.

The third area that I would like to see more engagement and discussions is about the local communities being creators of knowledge. Today, many of the users of the

Internet are actually receivers of knowledge. But there is a lot of knowledge that comes in. And I agree that there is the space that has been created through social networks. But it's important to see how we can enable communities, who are the next billion or the next billions, to become contributors of the knowledge within the Internet. So it's the access to the knowledge and contribution to knowledge that will redefine, perhaps, how Internet governance will be structured in the future years.

JONATHAN CHARLES:

I think the Chairman wants to make a comment.

S.V. RAGHAVAN:

When we talk about information communication technologies which go on the Internet, we hear a lot of possibilities, experiences, and a lot of desire for social change. These are the three heads under which lots of articulations can broadly be classified. If you look at directing them in some way, the governance can have three basic connotations – a technology governance, content governance and behavior governance. For example, security, privacy and responsibility come under behavior governance. So technology governance, content governance and behavior governance need to have high-level articulation, and they will, in some sense, will be domain-specific and culture-specific. What is allowed in one may not be allowed in another and so on. The results of what we do, it has to be translated and provided in languages, so multi-language technology is there to stay.

The second type of governance which is required which is related to all the three is security- and privacy-related governance. There has to be global understanding on what one means by terminology associated with security or privacy. One simple example is health records. I have been asking my medical friends and also the secretaries in the Ministry of Health, to whom does the health record belong? Is it belonging to the patient? Is it belonging to the doctor or the hospital or the insurance company or the laboratory which does the test? It's unclear. Or the service provider who holds it. We don't know. It's unclear to whom does it belong. An international understanding on whose health record is held by whom, and then all technologies about opening up specifically for one doctor and another will come into play. In insurance we have the term called second opinion. Here is a health record which is in public domain more or less. Everybody sees this public record other than me in the hospital. Where is the question of second opinion? It is only related to go the monetary transaction and nothing else. Whereas it has to relate to my health record and my well-being and my interest in it. So these kinds of issues, I'm sure, in other areas, there are related issues which talk about ownership establishment which also leads to privacy of information. This is one articulation of governance. It requires international understanding.

More and more that we do, this practice of ICT in the large, what is happening is the entire infrastructure, whether it is technology or content or practice, the business practice, the whole thing is becoming a critical infrastructure for the stakeholders. That critical infrastructure protection, if you type CIP in the Google or Yahoo!,

whatever, search engines today, it will first take you to the US Articulation of Critical Infrastructure Protection and President's Advisory Committee's recommendations and so on. These are the order it is coming up. I have been watching for the last one year whether there is any change. This is in some sense an understanding of what is a critical infrastructure. They talk about a physical infrastructure. There are also other content infrastructures. They are all becoming part and parcel of your life. The entire health information system is part of a critical infrastructure. Any innovation into that is a serious problem to the stakeholders. So how do we govern? What rules will govern that? How do we articulate that? How do we make a position paper, worldwide, after consultation, can be an issue.

If you look at security and privacy and technology terms, universal ID, authentication, and access to information in a specific form is going to be the sequence of flow. But if you take ID by itself, I don't know how many nations have multi-purpose national ID cards, and how many international multi-purpose ID cards are available, whether it is required or not and how an understanding can be reached. And how across sovereignty, across administration, authentication can be done. There are technologies available.

When you talk about governance, it also talks about the understanding, appreciation and business ability to carry on day-to-day work. In practicing those technologies, tools will come into picture. I'm sure the elite audience will be able to reflect on this. Once you do all these things, logs are created and information has to be extracted for evidence purposes, has to go to courts of law. So what will that mean? What route will it follow? There is no federated information infrastructure which can compose evidence which are digital in nature assuming all the digital evidences are structured in their format. There are many which are unstructured. They have to be collated. So that's another serious issue where governance makes sense. And of course the ownership, like I gave you the example of health records. These are some of the governance issues which are the emerging issues, when you talk about technologies, possibilities, experiences and social change. Thank you.

JONATHAN CHARLES:

Mr. Chairman, thank you. And Stephen.

STEPHEN LAU:

I wanted to make a minor observation from what the Chairman said, just a small point. The Chairman talked about who owns medical data. Is it the patient? Insurance company? The doctor? The clinic? As a former privacy commissioner, to me, the answer is short and sharp and unconditional. Medical data, being so sensitive to one's well-being and so private, ownership must be the person, the patient. All the rest, whether it is an insurance company, it's a clinic, a doctor, whatever, they are just the custodian of your data.

JONATHAN CHARLES:

Lots of hands and lots of people have been waiting.

FROM THE FLOOR:

I am from IT for Change. It's an NGO in India. I want to say from an emerging point of view, when we talked about the first hundred thousand people on the Internet, the first million, first hundred million, the challenges that the growing Internet faced were of a different nature. Moore's Law and technical advances made sure that more and more people could get connected faster and faster. I suspect that as we go along and as we are looking at the remaining six billion and looking at the more and more marginalized and poorer sections of society, it is not going to be the technical issues that are going to be the key problem. It is going to be the socio-political issues that are the issues.

When a 1990 UN conference said Education for All, they were very clear that it's not the technical part of setting up a school that's at issue. It's how do you get children of poor families, whose parents are working, who are belonging to families that have been exploited for generations, to come in. To reach education for the last million or last billion in India it's not enough for the schools to be set up by the government, but India for example has a free meal program because they know children won't get meals at home. The textbooks are given free to the children who are poor, free uniforms. There is a very strong public policy, public investment that is happening in education to make sure everyone is part of the education process. And Article 26 of the Universal Declaration of Human Rights, the 60th anniversary of which we will celebrate next week, very clearly says it's a fundamental right.

So if you are looking at an inclusive society where everybody is connected to the Net, I hope in Cairo and over the period of the next one year, we are looking at crucial socio-political issues that come into connectivity, what public policy, what all of us in a multistakeholder environment can work together to achieve that.

FROM THE FLOOR:

I'm a member of civil society but also a member of the Board of ICANN, speaking here in a private capacity. I would like to make a proposal for an international initiative which could be called ILFP, Internet Liberties and Freedom from Predation, or predatory practices.

Among all the things mentioned I would like to take up something Mr. Stephen Lau mentioned in the second day, in the morning. He put a very valid question, and I'm not confident that the proper answer, complete answer, was given to him. Mr. Lau asked specifically, in combating predatory or cyber-crime practices, what is the weakest link in combating this. I remember that. I'm not sure you got the answer. So I would like to take an analogy from public policy and from multi-lateral experience to submit to you, Mr. Lau. Say, for instance, disarmament policy. It is only efficient if three conditions are met. First of all, that it is inclusive. That means that people sign up that are really members and parties to that. The second is that the regime or the

process has to be verifiable throughout the chain. And the third element is that it must be subject to sanctions. And that is often the breaking point or the weak point.

Now, I would suggest that because the things we are talking about, especially cyber-criminality, is taking up a huge amount of resources. For instance, someone mentioned that spam accounts for about 80% of traffic today. That isn't tolerable, especially in the context that Jonathan Charles was mentioning earlier today, which is a crisis. It's a crisis not only for the financial institutions. Underlying that is a much deeper crisis of resources, energy, et cetera. So I think it is all the more our duty to address that in the larger picture of resources and economy.

Now, to be practical, I would suggest that if such a proposal were to be taken up in Cairo next year, it would have to look at the following points. The idea would be to create or to suggest some sort of overall global code of conduct. Pieces exist. In fact, very good pieces exist, whether from UNESCO, Council of Europe, the ongoing work in ITU is very valid. But I think that each of these has a great contribution, but perhaps not yet the global contribution. ITU, for instance, is government-centered, understandably. So is UNESCO, et cetera. Council of Europe, I heard some remarks from friends from other continents that, yes, of course, but we're not Europeans. So in a way, they don't entirely subscribe, not to the ideas but to the fact that it has a label which says Council of Europe. So we have to get over that.

I think the idea would be to establish, and where else than IGF, a platform of agreed principles which could be subscribed to on a voluntary basis, not only by governments but also by industrial groups, by NGOs, by representatives of civil society, et cetera. Now, I come back to – and that's my last point – the problem of sanctions. As I mentioned in my answer to Mr. Lau, the weak point is generally sanctions which are non-operative. I think the great thing about Internet is that it is shifting the notion of responsibility, but also the notion of influence away from government only to the global view. And the public view, the public perception is an element of reputation and influence. So I would suggest that for lack of a proper system of sanctions in the system I am suggesting, we should have a system of score board where there would be a sort of rating which could be submitted to the public appraisal. Because ultimately, I believe that now we are in a world not only of sanctions, because influence is more through example than through force.

JONATHAN CHARLES:

The Council of Europe were very active, as you mentioned, in coming up with a variety of policy responses to these issues. They can't be here today, but they have sent us a video contribution.

(Video):

The Internet is a resource for freedom of expression and for the right to seek and impart information and ideas, regardless of frontiers. Access to it is essential for our everyday, professional and private lives. Without it, we are in a way homeless and senseless to many things around us. So much so that we are now hearing cause for

a right to the Internet. Access has become a necessity rather than a luxury. Wednesday, December 3rd, the Council of Europe Deputy Secretary-General launched an idea for a new multilateral treaty on certain minimum principles and states' undertakings, including positive obligations to ensure the ongoing functioning of the Internet. This idea was also raised in respect of critical Internet resources in an IGF workshop earlier this week. It is also reflected in Spain's priorities as the new Chair of the Committee of Ministers of the Council of Europe. The sense of the Deputy Secretary-General's idea is that despite the ownership and the control of the machinery which brings us the Internet, there is a need for states to assure shared responsibility for the functioning of the Internet. This is to ensure, for example, that malicious acts within the jurisdictional territory cannot block or significantly impede Internet access to or within fellow members of the international community. A new treaty would promote solidarity and cooperation between states, to improve the quality of life and general well-being of all citizens. It will also underline the public value of the Internet beyond commercial interests, in full respect of international law, including human rights law. In conclusion, access to the Internet and the security, privacy and openness of the Internet are a shared responsibility. Signing up to a new multilateral treaty which ensures the functioning of the Internet would be of fundamental importance to keep the Internet open and free in the interest of ours and future generations.

FROM THE FLOOR:

I'm from Brazil. I would like to comment on two basic issues. One of them is an old issue already on the Internet, which is the overselling of upstream bandwidth to downstream users. It's a big problem. The other problem is control of the stream, in which providers of bandwidth, of broadband also, are linked to media interests. And they provide preferential treatment regarding streaming for their service, regarding streaming for other services. And this is increasingly becoming a problem. I think in the future, it will be even more serious. And also, this goes on with controlled interactivity. Internet as we knew it was completely interactive. We could treat ourselves as peers when we were interacting with the Internet. And increasingly, there is a control of this interactivity, and in many cases, Internet is becoming just a broadcaster of multimedia. What is going to lead us in the future? So what is, I hope, some of these questions which relate to net neutrality and the quality of service which is provided will be considered fraud in the future and be treated as any serious white-collar crime. But today, they are not, and we are in the hands of these big providers. And this is a very serious situation which we hope in the future will change for the better, not the worse.

FROM THE FLOOR:

I'm from the International Institute for Sustainable Development. I just wanted to expand on the issue of cyber-security, to look at it from the perspective of cyber-warfare. I'm just wondering if there's a role for the IGF community to look at the issue of the Internet as a global commons and treat it in a similar way that it has

been treated for outer space. The UN has declared the space treaty, the militarization of space.

FROM THE FLOOR:

I'm from the International Federation for Information Processing. We need to be given elements of assessment so that we can be sure that certain rights are respected – the right to access the infrastructure, the right to local content that corresponds to people's needs, the right to security. And also bearing in mind that there are some shared responsibilities, and that it's possible cyber-criminals might end up being in the developing countries and those countries won't have the means to combat or detect these cyber-criminals, we have to think about sharing resources as well as responsibilities in order to be able to provide for all these rights. So the right to inclusive participation is the last right. So the focus, I would suggest, for our next meeting might be more in the area of verifying where we stand vis-a-vis these rights. It's not just about focusing on cyber-crime, but we need to focus on what rights need to be protected, what rights need to be guaranteed and ensured. I think these are the positive links of the chain of governance. Many have already been underscored and were underscored in the Rio meeting.

IAN PETER:

A lot of the comments I'm hearing from various people in the room are around the idea of principles and rights. In the area of Internet, we've done pretty well in terms of having structures in place that deal with technical coordination. We haven't done very well in terms of the structures that deal with principles and rights. The idea of a treaty has come up. We've got a Dynamic Coalition on Principles and Rights, and suggestions that this become a major theme next year. And I think this is very important that we find a way to do this and have some new initiatives in this area, such as the Global Network Initiative, where a lot of the businesses have started to come up with some common principles. That's important, as one response. But overall, on a multistakeholder basis, I think the whole idea of coming up with some common principles and rights is important.

I think the other thing that's important to avoid the disaster scenarios is that we start, as we look at Internet governance in the Internet Governance Forum, to look at the issues which are beyond technical coordination. We tend to focus on those areas. So let's look at the issues beyond technical coordination, which does include these principles and rights. And what do we need? Is this industry self-regulation? Or what is it? But we need something. There's obviously big gaps here that need to be addressed. But at the same time, in the areas where we have technical coordination, we need to look at what are the policy implications of this. It's almost a no-no within business for technical to make decisions without business involvement and without looking at the implications. So what are the policy implications around what we're doing? So we need to find the way to link policy and public policy into technical-only coordination. But we also need to look at how we deal with these whole issues of principles and rights as the Internet goes forward so that we do get

these common agreements in place. And then I hope we can avoid – I won't call it your scenario, but the one that you described.

JONATHAN CHARLES:

Heather, maybe you want to say a few words on that.

HEATHER CREECH:

I'd like to pick up a little bit on some of the very early comments around the need for access to scientific information. I'm struck by the difference between the protection issues, protection of personal information, but the absolute requirement to have full public access by everyone to environmental information. And we need somehow or other, in constructing a sense of principles and rights and responsibilities that responsibility, to make information about our environment, about our resources, available to everyone, that we really need to look at these issues in the larger context of how we're managing the world in general.

JONATHAN CHARLES:

Herbert, from the commercial point of view, what are your thoughts that you're formulating after what you've heard?

HERBERT HEITMANN:

I think in business we have a tendency not to fix what is not broken. So I would recommend that we work on what works and what's existing. And there are things like the UN Global Compact which has been put in place many years ago. And I think it's a tremendous example of success. And I would encourage all participants here and others to look at this and see how this can be used to address the problems that we are hearing and that are real and serious but not invent new approaches without having seriously explored the existing ones and their effectiveness.

FROM THE FLOOR:

I am representing Ambedkar Center for Justice and Peace, a global Internet organization specifically focusing on India. We are talking about the next billion, but most of the people of the next billion are in India. Total population of India is more than a billion. And 81.4% of people of India live in the countryside. It means about 850 million people are in the villages that are in the countryside. Of these 850 million people, about 250 million come from the untouchables and the tribals. They are so poor and marginalized and neglected, their earning is less than a dollar a day. In the UNDP 2005 report, India had 44% of population who is earning below a dollar. How could a person earning less than a dollar spend half a dollar on Internet cybercafe? So the question is about basic fundamental rights.

Our organization participated in Tunis in 2005, and we wanted that all the countries should make a law that for all the citizens, irrespective of their income, the Internet

should become the fundamental right. These 850 million people, they also constitute about 120 million child labor and 60 million bonded labor. With all these people, they are also the citizens of this world. So they should also have the right to the Internet and accessibility. So the next IGF in Cairo should focus on this accessibility and at the same time affordability. It is not only accessible. Somewhere the Internet may be accessible, but people are so poor they are not able to afford it. So we should find out some way of how these poor people have the accessibility, they are able to make use of it.

JONATHAN CHARLES:

A fundamental right. Mr. Chairman, I suspect you've spent a lot of time thinking about this.

S.V. RAGHAVAN:

I did talk about inclusive growth, in financial, geographical, literacy and cultural senses. I also mentioned in my opening remark that our study shows it costs only one American cent — less than a rupee — to connect at a gigabit rate every hut in every village. That's the study. There is a political will that's required, administrative will, NGOs, companies, finance, research, entrepreneurs, philanthropists, to come together to make it happen. Technology is in the pocket. That's only 5%. The rest is to make it happen, 95%. There are several factors in the society which contribute towards any benefit that is found by humanity to reach every part of that humanity. We have been talking about principles, rights, accountability, responsibility and fixing liability. These are issues that have to be very precisely, succinctly defined. And these have to be within the administrative domains of sovereignty of nations or whatever. I agree with the gentleman, jurisdiction is an artificial term, like company is an artificial entity. You create it; you can destroy it.

What we have missed out in the discussion, in my personal opinion, is information assurance. How do I know what information I am seeing on the Internet is correct information? Who is endorsing it? I believe that it is correct information. So there has to be credibility rating that is accepted across the world which can be associated. We have just taken the baby step in that direction, saying that I go to the Web site, I look at it. Because I see Verisign certified. So I can also cut and paste that in my Web site and say Verisign certified. When I have Internet, most often the browser says 'not recommended,' blah, blah, blah. And I click on it and go ahead. Not on a single occasion I stop to observe what is normally considered necessary in discussions like this. How do I change my behavior? What is information assurance as a subject? It's not security, it's not privacy, it's not protection. Whatever you are seeing is the right information, who is going to say that? Whose responsibility is that?

No matter how we design a system of governance — let's say we all come to the conclusion the whole world is saying, "This is the way to do it," all of us agree, 6.5 billion signatures on paper. The whole system should be observable and controllable. Otherwise, it's not a system. And it has to be stable. It has to perform.

If it does all of this, my life will depend on it. It has to be reliable. If it is reliable, my life depends on it, it has to be available 24 by seven. So all these will be additional things which one has to worry about. What it takes to get the respective countries and national resolve in respective countries to make it happen, how can a gathering like this, which is the Internet Governance Forum, can act as a catalyst, can act as a motivator for doing these things? These are the issues worth looking at. I think we are trying to get a system of tomorrow. And that system should be observable and controllable. And that requires precise definitions all around.

FROM THE FLOOR:

I'm from Sify Technologies. I am really coming off what my fellow Indian said here. He made an impassioned plea for those 850 million people and also what our Chair had to say just now. Rather than a multilateral kind of agreement, as recommended by the Council of Europe, perhaps it's time for the IGF to think and to reflect and recommend to the UN that they add to the Universal Declaration of Human Rights, that access to Internet should be a human right, and that in future, whenever countries are rated according to the Human Development Index, access to Internet is a primary part of that. Only then, I think, will there be the political will or the resolve to make it happen..

FROM THE FLOOR:

I am representing the Internet Observatory of Belgium, which is the multistakeholder platform for Internet governance in Belgium. I would like to build upon a few statements that have been made this morning concerning social networking sites, but also the protection of minors on the Internet.

In several workshops, we have discussed the difficult triangle, the difficult relationship between security, privacy issues, but also business opportunities of the Internet. And we have discussed the shared responsibility of governments, of businesses, but also of the Internet user. However, this responsibility of the Internet user presupposes knowledge, knowledge about the purposes of the databases wherein personal data are included. This responsibility presupposes also knowledge about the business models that are used in social networking sites, and also other very popular and very interesting ICT applications. We have observed, unfortunately, in our research that there is a lack of transparency of several Web sites concerning their purposes, what they are doing with those personal data.

There has been tremendous good work done by some major Web sites and social networking sites, but maybe a proposal for our next IGF could be to discuss not only legislative initiatives, initiatives of self-regulation, but also technological tools. And maybe discuss the concept of privacy by design. Namely, that you include privacy as a USP, as a unique selling proposition, when you are developing new tools, new interesting platforms on the Internet. So privacy by design in a technological sense, but also by providing information that is understandable for consumers, because a lot of privacy statements on Web sites are written by legal

experts for their colleague legal experts, and not for Internet users and not for teens or kids.

Finally, I would like also to propose for next IGF discussions, multi-disciplinary discussions about social networking sites, other popular applications, but also another phenomenon, namely, the blurring boundaries between entertainment, information and commercial purposes. For instance, in the context of online use by teens, the adver-games that are very important and very attractive for teens and sometimes tempting minors to give personal data.

JONATHAN CHARLES:

I would like to give each of our panelists a minute to sum up what you take away from this. Ian, I ask you to start now.

IAN PETER:

Let me come down to two areas of issues that sit for me.

One is around a lot of the interventions around the whole area of what might be public policy, principles and rights where we don't seem to have structures at the moment. There are many suggestions, treaties, a bill of rights, statements of principle, self-regulatory regimes. All of this needs to be discussed. And perhaps that area is the future of this particular forum. I think that needs to be interestingly looked at as we go forward, as the public policy issues as they arise from the nature of the Internet.

The only other comment I would make is on the nature of the mobile as we go forward. Is my mobile in 2028 going to be one where I can choose my search engine provider or is it going to be one where my provider tells me what I can see? Have I got the openness and access that I have got now? Do I have the interoperability across platforms I have now? These are the critical issues for me in that space. And I do look forward to seeing you all in Reykjavik in 2028, and I look forward to the report of the Working Group on Defining Enhanced Cooperation.

HERBERT HEITMANN:

I think it is important and the discussions here this morning show again to really be open and aware of all the multiple issues here. I haven't sensed a single individual in this whole forum who didn't show appreciation for raising awareness for issues. But I would also like to remind all of us that we wouldn't be where we are with this, do we have the next billion or not yet, but this already enormous amount of billion citizens on this planet to have the access and having the capability without businesses, small ones, medium ones, large and super-large ones investing in this. There is no reason not to trust they will continue to do this and therefore drive these kind of developments in the right kind of direction.

HEATHER CREECH:

I agree with all that has been said already. Just a couple of thoughts of my own, particularly around the very vibrant discussion around the idea of treaties and agreements and so on. In my opening remarks, I talked a little bit about how the IGF should move itself and its influence into other fora. And I am actually more interested in how one strengthens the existing agreements and treaties that we have now rather than going down the road of creating yet another treaty. Many of you may not be aware that we have over 70 multilateral environmental agreements alone. And the challenge, of course, is not having another treaty. The challenge is making the treaties that we have now work. So that's one of the things that I would put on the table, especially around the area of rights and responsibilities and so on. And the last comment that I would make is just encouraging the IGF as a model in itself rather than being sort of a formal structure, treaty-oriented forum. A forum that's trying to find a new way of networked governance, soft governance, to come to agreement outside of some of the traditional silos that we tend to get into when we talk about treaty processes.

JONATHAN CHARLES:

Thank you very much. Stephen?

STEPHEN LAU:

I will be very, very short. I picked up two particular points here. One is sustainability. I think for us to reach the next or the last billion, sustainability in terms of access to information, sustainability in terms of respect of the information flow and human dignity, sustainability in terms of cyber-security and privacy. And all this sustainability, what it points toward is how the people use the Net. At the end of the day, that's one word: trust. If you don't have trust, you can forget whatever we said so far in all fora.

The final point is people use the word silo. If you look at all our stakeholders, multistakeholders, be they academic, be they civil society, governments, technology and business entities and all that, they have been parallel universes, but then a portal opens up. That portal is IGF. And that portal is now actually providing increasingly conduit, channels, gateways, upon which these parallel universes are communicating, having dialogue, collaboration. And I like to believe that there will be more gateways to be opened up for further elaboration. Maybe there will be more parallel universes out there. And hopefully in the foreseeable future in our vision all these universes would be integrated for the overall interest, in the overall interests of ourselves, our world and humanity.

JONATHAN CHARLES:

Let me give the final brief thought to our Chairman.

S.V. RAGHAVAN:

In a nutshell, what we are discussing are, as I said earlier, technology, content and behavior governance. And we are interested in ensuring that security and privacy in a form is understood and practiced by people. And because it is a critical infrastructure, information infrastructure, protecting it is in the interest of everybody. So we come up with ideas of governance which help you do that. So the process of doing it, we are going to define principles, rights, accountability, responsibility, liability, so on, and create a system. And we should make sure that that system is controllable and observable. Like Heather said, there can be any number of agreements that are signed. Coming from educational institutions, we have 349 Memorandums of Understanding which are signed with sister educational institutions around the world. If you look at what is operating, maybe 10 or 15 of them, and that because of one passionate individual behind each one of them. So we not only create these formalisms and structures. Let's also find passionate individuals everywhere in the world inside every stakeholder – the government, the NGOs, the business, whatever – who believe in what we are saying and what we are discussing. And to put it in Lau's words, what we are trying to do with the technology is a business transaction in a trustworthy environment. So "trust, technology, transactions" is going to be the paradigm for the IGF. So that has to be reiterated. I'll end my remarks with a simple Sanskrit sentence which says, "Everybody in the world, let them be very happy." That's all we are looking at.

Open Dialogue on Taking Stock and the Way Forward

Chair : Mr. Nitin Desai, Special Advisor to the Secretary-General for Internet Governance and Chairman of the Multistakeholder Advisory Group (MAG)

Panelists:

- Mr. Jeff Brueggeman, Vice-President, Public Policy, AT&T
- Ms. Katitza Rodriguez, Electronic Privacy Information Center & DiploFoundation Associate
- Mr. Georges Papadatos, Permanent Mission of Greece in Geneva
- Mr. N. Ravi Shanker, IAS Joint Secretary, Department of Information Technology, Ministry for Communications & Information Technology, Government of India

Extracts from the Transcript of Proceedings

Introductory Remarks

NITIN DESAI:

We are now entering the last substantive session of the third IGF. This is the session where we have to take stock and look forward. Let me begin by posing three sets of questions.

The first question that we are to address in this meeting is about this particular session of the IGF itself. IGF in terms of its format and modalities has evolved, and this third IGF had a structure and a format which was significantly different from the past. It was changed to a very large extent in order to give people a greater sense of engagement and involvement. So I would certainly wish to get your assessments of the format, whether you felt that the changes in the format had secured greater engagement and involvement by all of the people present here. The second thing is that I certainly feel that at the third IGF we have reached a point where we cannot just focus on process; we also have to ask ourselves, what do we take away from this? And I would like you to address that question as to whether the structure, the format we have, does allow you to get something out of the meeting, which you can take away and change the way you operate as a user of the Internet, as a service provider, as a manager of the Internet. Again, related to this, the idea of the IGF is not to secure agreement amongst all parties. That's not the intention. This is not a negotiation forum. It is very much a forum where we have to listen to each other in a spirit of honest debate, of a sincere dialogue. I would certainly wish to hear from people here as to whether anybody here is going to go away with his or her views modified in some way by what he or she has heard here. So this is one complex,

the review of the IGF as it has evolved, any reflections that you have that you can take into account for future meetings.

This brings me to the second question that I would pose – what suggestions you may have for the Egypt meeting, which the Multistakeholder Advisory Group would take on board. There will, of course, be other occasions when you can do this, because we will have the consultations on the agenda for the Egypt meeting later. But I'm sure there are many people here who will not be able to participate fully in those other discussions, which will be held, presumably, in Geneva. So any reflections you have on that would be valuable.

Finally, as was mentioned right at the beginning of this meeting by the UNDESA Assistant Secretary-General, one of the things that we need to do over 2009 is a review of the IGF so that the member states can take a view on its continuation beyond the five years, what we call the review process. This will, of course, be discussed extensively in February when we have open consultations for two days in Geneva, followed by a meeting of the Multistakeholder Advisory Group. But I'm sure people here may have thoughts on this, and we would definitely wish to hear them so that this can be taken on board and into account when we meet in February.

These are the three sets of questions I would pose. To summarize, this IGF, the next IGF, the future of the IGF. I'm going to ask the panelists to give quick comments on these topics and then open the floor. So first is Mr. George Papadatos.

Presentations by Panelists

GEORGE PAPADATOS:

We all know that the big bang was Tunis. And there, a heavenly body, according to some, was launched in orbit. And that was the IGF. But like all last-minute compromises reached at 3:00 in the morning, there were a lot of gaps regarding the continuation of the existence of the forum. And this is one of the points that will come up in the future. What does looking forward mean to me? It means, where are we going to be in the next IGF and beyond, what adjustments must be made to this institutional experimentation and what are the mechanisms of getting there?

First question, can this multistakeholder body decide its future? My answer is, to a large extent, no. And if you look at the mechanisms that will be initiated in the UN until it reaches to the General Assembly, there are several filters. And this is something we all have to be very careful about. I think what this body wants should be very well reflected in this process and very accurately. However, I have my doubts about that.

Second question. On the basis of the first three IGFs, are there any adjustments needed? Even going into the next IGF, the answer is yes. There needs to be more funding to have a viable and predictable IGF. Up until now, I understand that there

are only very few contributors. And there aren't any plans in the future for more contributions. So this is something that has to be addressed. Then part of this question relates to the decision-making process. I think that there are some weaknesses in the decision-making processes as far as transmitting what this audience wants to what will transpire in the next IGF. So some lessons can be learned from the regional and national IGF processes that can be adapted to this model here. Then we need to bring more governments into participating in this forum. The answer is, if you want some of your ideas to have any bearing on policy decisions, one way of doing it is through governments. And it is my understanding that some governments have lost interest. I also think that parliamentarians should be engaged in the process. They are involved in key committees in parliaments that make legislation and also influence policy.

As far as next year goes, I think that we have to adjust agendas. We have to have a good choice of speakers. We have to prepare the session a lot earlier and make it more attractive to everyone.

N. RAVI SHANKER:

As a process, the IGF needs to have continuity, as well as change. We need to analyze what has been done so far and synthesize whatever are the new inputs that need to be factored in. I'd like to dwell on the fact that the multistakeholderism needs to be truly reflected, the sense that while we are asking for academic, industry, media, civil society, in addition to the government representation, the last man standing is an aspect which we need to look at. The process needs to be broad-based, a little more breadth and depth to the Internet governance. And that way, we would have it truly into the multistakeholder forum which we are having.

What is needed for Egypt? I think the discussions at the MAG meetings would have to factor in all the inputs that have come during the course of the comments, during the course of the workshops, during the course of several coalitions. If these could be listed into what have been the responses positive and what are the thoughts which are needed for change, I think that gives us a guidepost onto what we need to do. A repetition should be avoided. And that is one facet we need to look into. I would think that there is a need to build an institutional cap into the whole IGF process. And that is an activity that could be perhaps discussed at greater length during the course of the MAG meetings.

JEFF BRUEGGEMAN:

I want to give a sense of the feedback and impact that I was hearing from some of my business colleagues about how far we have come and as a way of looking forward and building as we go into Egypt. I think business came into this process maybe with some trepidation, but I think really feels there has been a lot of progress made in developing trust and increasing the level of engagement in the discussions. And I think this building process results from the way that the multistakeholder process is able to incorporate a wide range of views and allow a somewhat bottom-up discussion that is organic and is changing and evolving as we go from one IGF

to the other. So the changes that we see going forward, I think, can build and expand on the success that has really brought us to this point.

A couple of specific comments that I've heard this week is that people thought the dialogue was very good and that a lot of progress has been made in refining some of the policy discussions and in building on the discussions that had occurred previously. So looking ahead to next year, continue to try and keep the focus on making the agenda relevant and topical. I think, for example, there was discussion of the global economic issues this year as an example of how the IGF can be very flexible and respond to things that are happening in real time. Another point is to continue to increase the interactivity of the conference. I got a lot of positive feedback from my colleagues about the workshops. And some of the workshops allowed for audience participation, direct question and answering, and the recommendation would be to try to expand the potential for that. Finally, I think there is a feeling that there are some interesting developments happening with the national groups and also the regional IGFs that is helping carry the IGF discussion forward throughout the year and also expanding the dialogue to include more participants, helping to disseminate the policy discussion that's happening in IGF, as well as bring a broader set of views into the process, and that that's a very good development and also should be encouraged and fostered going forward. So we are very excited about the progress that's been made, and we look forward to next year.

KATITZA RODRIGUEZ:

Let me now reflect on the last three days. I will make a few suggestions that I may propose for the next IGF.

It is good that cyber-security is now explored together with privacy issues. Those subjects are strictly interlinked and deserve such a combined reflection, and the discussion should continue taking the privacy dimension. However, this framework should not limit the discussion of privacy. We have observed that the discussion in the conduct of cyber-security and cyber-crime necessarily take the avenue of criminal actions and how they will be meaningfully prevented without illegally restricting fundamental human rights such as privacy and freedom of expression. However, this discussion does not cover the wider dimension of consumer and Internet users' privacy in otherwise perfectly legal venues set up in spaces such as e-commerce. Because of this restriction in these topic combinations of privacy and cyber-crime and security, information privacy and data protection has not been addressed in the main session as it should be, nor has it been taken into account in the report back in the morning sessions. I would like to propose to you that information privacy and data protection be considered here as an independent topic to be addressed in the main session in the next IGF in Cairo.

In relation to privacy, security, there were very meaningful contributions during the morning session. For example, those done by Mr. Rodotà regarding the use of intrusive technologies and their implication of privacy. The implication of privacy of location-tracking technologies such as biometric RFID technologies could attempt to

be discussed. I also would like to pick up the proposal made in the morning to discuss these in a multidisciplinary approach, economical, social, legal and technological point of view, and to include sessions of privacy integration technologies, technologies that are considered privacy in its design. Other topics were privacy and social networks, and specifically attention on minors.

Finally, it would be nice that during the organizations of the forums, the members of the advisory committee could work with the communities working on these issues to create a debate during the main sessions. The most important part is that we are all the stakeholders together discussing in these venues. We would like to have a more real debate. The problem is in the granularity and not in the general statement.

Discussion

NITIN DESAI:

The floor is now open for discussions.

FROM THE FLOOR:

There have been very good sessions in this IGF. I believe we have moved forward considerably, and there has been a positive response to some of the issues that were raised last year, particularly in relation to greater engagement. Personally, I will go from this event with greater confidence in the process, particularly because we have seen what is an almost spontaneous development of people getting together multistakeholder approaches, national IGFs, regional IGFs, call them what you will, which indicates that we are moving out of an event to a process that goes on which simply comes together in an event like this. And I hope that will be very much reflected in the agenda in Egypt next year.

It seems to me that we need to focus our program much more closely on the search for consensus. The strength of the IGF is that we are not a decision-making body or a treaty-writing body, so that gives us in the IGF the freedom to work in achieving consensus and arguing about differences, dealing with principles. We're bound to have the sort of discussion we had yesterday about ICANN and its future, but I thought much more to the point was this morning an excellent discussion on emerging issues which pointed to the real agenda. Internet governance isn't just about ownership or technology or even ownership and technology. It's about the interface between people and businesses and nations and the Internet. It's about the implications of change, and it's about development. So let's promote the fact, with all those stakeholders, including business, including government, as has been said from the platform, let's promote to those participants that the IGF is the safest place to work at developing the consensus that we need on issues that are actually moral, cultural, economic and even personal in their nature.

As regards the issue of data protection or data privacy, can I suggest that wherever possible we shouldn't go off into one silo. So, for instance, if we go into a debate on

data privacy we should at the same time debate data sharing, for instance for the purposes of reducing crime and increasing personal security. If you debate those issues in separate silos, you end up with incompatible answers. And if we try to bring difficult issues together, we won't get much further.

Can I suggest as far as next year is concerned, just a couple of points. That we make the annual event much more focused on the work that's done through the year by coalitions, by networks and national events, and promote them, as I was very pleased you did this morning, to the main stage. That we share the work of national IGFs and regional groups in the same way, things like the East African IGF are extremely exciting. And that these should be shared at the main stage, with information prepared in advance so that we don't have long presentations, but we focus on debate, sharing and questioning. That we promote best practice to the main stage. We hear almost accidentally about how many good things are happening in many parts of the world, and we made our own presentation from the UK in a small workshop. I would like to hear more of this in well-prepared, perhaps short videos so that we have a lot of input, and then have as much time as possible for debate.

The next suggestion is very painful for me. It's a self-limiting suggestion that we limit all contributions, including panelists and chairs, to 3 minutes, allowing more people to speak and for debate. And increase the preparatory use of Net-based exchanges, video exchanges and telephone conferences.

Finally, just to reflect one plea from the stage. I do think we need to see parliamentarians from all countries more engaged in this process. That needs to be a mainstream of parliamentary activity, not a separate one just for the IGF. And I would ask people to perhaps encourage their parliamentarians, and certainly what we will do from the UK is to argue within the Inter-Parliamentary Union, the IPU, and perhaps through the Commonwealth Parliamentary Association in our case for mainstream engagement of parliamentarians with the work of the national and regional IGFs as well as the main event itself.

FROM THE FLOOR:

Thank you. I am here speaking on behalf of the Gender Dynamic Coalition. The coalition has met actually twice during the last few days, and I would like to share some of our thoughts as well as recommendations. And I think we will be trying to address some of the points that the moderator has asked in terms of questions.

I would like to start by putting on record that the coalition appreciates the recognition that was given in terms of discussions, in terms of gender, and that women actually constitute a fundamental stakeholder in the Information Society. So we think that this is an important beginning, and that we hope that there will be more efforts in terms of fully integrating gender or gender concerns in the work of the IGF.

I think it's also important to recognize that in terms of the multistakeholderism, that the three main sectors that are IGF's defining features are not monolithic, unitary

and consistent actors. Hence, greater effort is required to bring women's diverse perspectives to the forefront in each of the stakeholder groups. So ultimately a rights-based approach, something we have heard quite a lot in the last few days, in terms of Internet governance is really the only safeguard for women to fully enjoy the potential benefits of the Internet.

So what's happening in the last few days in terms of the contributions or the spaces given in terms of women's rights? Two of the themes, I think, that really featured discussions in terms of gender perspectives were the access theme as well as the openness, privacy and security theme. They clearly illustrated the ways in which Internet governance implicates rights of women, and rights that are essential to women.

The coalition feels that access to Internet is very critical to women to access information that may not be otherwise available to them, and to facilitate the full realization of these rights. So for women from marginalized communities, the Internet can also function as the harbinger of citizenship rights, bridging their rights to be informed with the duty of government institutions to inform the constituents. So the provisioning of the Internet is very fundamental in terms of social policy issues. Policy that aims to make the Internet available only to one billion at a time we feel is not an adequate response. And from a rights perspective, access to Internet is, indeed, crucial to all.

In terms of discussions on the openness, privacy and security, it is clear that they have very gendered angles as well. The Internet is fast becoming a means of asserting IP and proprietizing and commercializing knowledge. The process divests knowledge of the communitarian and public value upon which the daily lives of the vast majority of women rest.

In addition, women's ability to assert rights beyond national territory and shape human rights debate and development alternatives cannot happen in a context where the Internet is increasingly controlled by states and corporations. Many women do risk their lives to share information about injustices on the Internet. How do we actually guarantee that women's rights will be addressed? Now, just like women's rights to education, to health and livelihoods, we feel that the rights to Internet cannot be bartered in the name of revenue models or public-private partnerships. So the right to Internet cannot be marginalized in the befuddling rhetoric on the right business models. So while the markets may have a role to play, gender justice can only be guaranteed through appropriate global, regional, national and global policy.

In Athens the participation of women stood at 30%, and 31% in Rio. While this is relatively good participation, we do call upon the stakeholders of the IGF to ensure that in Cairo this is reflected in the visibility of women as speakers, panelists and workshop proponents. Women and gender experts should be actively included in all endeavors of framing the regulation mechanisms and policy models. And, in addition, we feel that it is essential that gender perspectives are included in all public policy debates regarding the use and development of the Internet. So we do

call upon the international community to devote the next IGF theme to a theme of rights-based approach to the Internet. And for a majority of the world's women, the Internet represents an enabling paradigm that can guarantee not just their communication rights but expand all of their rights. And as long as women's rights have not been addressed, the dream of an "Internet for All" will remain unrealized.

FROM THE FLOOR:

I am from Brazil and I am from the Remote Participation Working Group. This group was created in the beginning of this year by individuals from several countries with a common concern to enhance remote participation in the IGF. In the last open consultations, we made a public proposal for remote participation which consists in the creation of IGF hubs. These hubs are local meetings which exhibit the webcast of the IGF and may also interact with people in the event, sending text as well as video questions using the Dimdim platform. These local meetings also hold panels and roundtables to discuss the issues of the IGF from a local perspective. The IGF Secretariat has endorsed our statement in the open consultations and the creation of IGF hubs. We thank very much for this support.

We sent a call to mailing list and got in touch with regional organizations. The result was a creation of eight IGF hubs in Argentina, Brazil, India, Pakistan, Colombia, Serbia and Spain. This is a sign there is interest for remote participation. We only have to open channels and publicize them.

These hubs have been interacting with the main sessions and the workshops during the last few days, and have provided good feedback about their experience. We have also had feedback from individuals in blogs dedicated to the IGF and in Twitter. Dave Durbin from Australia says on Twitter, "The best streaming of a conference ever." Participants of one hub used it as a starting point to create a local committee to discuss ICT-related issues. We had some technical problems in audio and video in some sessions, but overall experience was smooth and problem-free.

The Remote Participation Working Group, together with the Dimdim team, is collecting numbers and opinions, and we are organizing an evaluation about the remote participation in the IGF. We hope it can be published in the IGF home page. We would like to share this information with you all and ask the IGF Secretariat to continue providing support to this initiative to engage in the remote participation evaluation and to acknowledge remote participation as an important part of the IGF. And we ask all of you here to help to give publicity to it because we don't feel it's our project. We feel that it's the project of everybody who is concerned with remote participation, and the coalitions and workshops that were dedicated to it.

NITIN DESAI:

I want to thank all of the people who have been involved in organizing this remote participation. And certainly, the information on this will be on the Web site, and we will continue to work so that we keep improving it.

FROM THE FLOOR:

I am from ISOC India, Chennai, but I want to share my observations as an individual. This is my first IGF, and I have a lot of respect for the participants here. But my individual impression is that we have a lot of experts here, but the expertise in some cases does not stem from a complete understanding of the fundamental issues. We are on the third IGF, and because we are on the third IGF, is it right to assume that we are halfway through the process of evolving Internet governance? Or is it right to think the way forward is to go back to the fundamentals and ask what is the Internet and what is the impact of the decisions made here in its full depth, and then decide what needs to be done?

FROM THE FLOOR:

Brazil came here with a strong delegation. We brought two federal Senators. Our Ambassador to India came down from Delhi to join our delegation. We had one Vice-Minister, officials from different agencies of the government, nongovernmental organization representatives, also representatives from the private sector, members of the Brazilian Internet Steering Committee, two federal prosecutors, diplomats and those who remotely participated from Brazil, as our colleague has just said. That shows the interest and the commitment of our country to contribute to this forum to the best possible extent.

I would like to refer to another event, though, which is also a multistakeholder one and took place in Rio de Janeiro from 25th to 28th November this year, 2008. That is a few days ago. It was the Third World Congress Against Sexual Exploitation of Children and Adolescents. It was an initiative of the Brazilian government together with UNICEF, ECPAT and NGO group. That environment, which was also multistakeholder, was able to negotiate and adopt the so-called Rio Pact to prevent and stop sexual exploitation of children, which consisted of a declaration and a plan of action. This is the proof that a multistakeholder environment is able, if there is political will, to reach meaningful conclusions to tackle problems that are of global importance. That meeting had 3,500 participants from 170 countries.

Why can't we do the same? Of course we can, but what is lacking among us to reach the same kind of concrete result? I believe it is political will. But how can we get political will? Well, first of all, it is through discussion. There is no other way. We need to build trust and understanding, we need to lower our barriers, we need to understand and respect each other's point of view. And it has been done through the three sessions, three IGFs that we have had so far, and we should pursue and continue on that way, bearing in mind that we are not coming from all over the world only to see each other and talk and then go back home. Of course, the setting here is different because it is different if we have an event that is oriented towards one specific common goal, like it was the case in the event that I mentioned in Brazil. But here, some discussions have led us to a point in which we may say that they are mature enough for us to start thinking what the next steps might be. Because if we, the next time, start from scratch discussing the same issues that have been discussed during the past two IGFs and this one, it may not take us further.

There are, of course, some criteria or some preconditions for that to happen. The first one would be a broad consensus. Second would be the involvement of relevant stakeholders. Third, as I said, discussion would have to be mature enough to shift towards practical measures. But I think that our greatest challenge, and the future of the IGF is related to that challenge, is our ability to deliver according to the mandate that we have in its entirety. We from Brazil – government, civil society and all sectors of society – are fully committed to that goal. You may count on us continuously.

FROM THE FLOOR:

I'm an MP from the UK. We have talked a lot about the multistakeholder approach, and I think we have succeeded, to a very large extent, in that. But I raise the point that I raised last year, which is I do think that many of the discussions that we are having, we need to reach out further to our citizens to engage them in those discussions as well. And I do congratulate our colleague here on the work that has been done remotely. However, I do think that we need to do this in a more structured way and using the technology, by which I mean we need wider citizen e-participation in this conference, and perhaps posing some of the difficult questions.

I would specifically say within that that we need to engage with young people. We all know that they know more about technology than we will ever know, and they will always find different ways of using the technology. And I would just like to make a proposal that we have been discussing in relation to the UK IGF that we would be willing to pilot some kind of online participation, possibly linking up with our colleagues, young people in Egypt and in other countries to get their online engagement in preparation for the Cairo conference. And certainly hopefully their active participation in that. Looking around the room, we are not all as young as we might wish we were, and I do think we need to have much more involvement of young people.

The second thing is I was extremely pleased to hear that there is likely to be more of a focus on developing countries in next year's IGF in Cairo. This certainly came up very loud and clear in our debates about online child protection where it's clear that some developing countries are going to jump over us in terms of technology but don't have the protections and policies necessarily in place, which could leave their children extremely vulnerable. So as well as in previous sessions offering any help that we can give, I think it would be an excellent idea to have that firmly on the agenda for the Cairo conference.

FROM THE FLOOR:

I first would like to start by pointing out that I think IGF is better today than ever – in fact, it improved along this same week, to reach a very special level in this morning's emerging issues session. The IGF, I think, should maintain its approach of an evolving model of interaction, a continuously learning venture. I think this forum is unique as providing a conscience to the Internet community, like the network of neurons in the human brain provides a conscience to a human being. I

believe this role is not fulfilled by any existing organization, and that it cannot be contained in more traditional organizations of hierarchical nature.

This conscience and intelligence is essential for the economy and for societal improvement in all the areas of the globe. The reason for this is that we need an organization that matches the network structure of the Internet itself. Openness to participation and interaction, evolving boundaries with time, fractality in the sense that when we look at a small part of the network, the pattern we see is equal to the whole network itself, and therefore it's not the kind of networks which somehow have structures which are more organized and hierarchical. It is the robustness of the interaction of diverse and independent actors that allows the sustainability of widely shared values, convictions, and principles.

The issues of the Internet are not exhausted by technicalities. Actually, technicalities are only a minor part of the issues that have to be brought to consideration in the whole picture. As a matter of fact, we need social organizations with the flexibility and interactivity which are characteristic of human beings, new kind of organizations. And IGF is actually pursuing from this point of view organizational innovation of a very special kind.

In terms of the future, I think that certainly we need to work better on a point that was already mentioned by another person regarding reaching out to wider audiences in a more efficient manner, to bring whatever has been constructed here so that it can be communicated outside, and to improve on remote participation, for instance, to actually involve younger cohorts in this discussion, which I think you are eager to do.

In terms of themes, I cannot do better than what the session of emerging issues did. I commend the adoption of the proposals that we heard during the morning and its exploitation for the future steps of this organization.

FROM THE FLOOR:

I'm not going to dwell upon some of the more strategic and macro views with regard to important issues being brought up. I like to look at the more micro issues. If I took an example, I think the issue is data privacy on the Web. It's an important issue. We brought it up. It should be discussed. But any issue we bring up, I'd like to suggest at least that there is some kind of action, activity that goes along with it. For example, when we talk about data privacy on the Web and notification statements now in a lot of Web sites, I would like the proposer to be able to say, "It should be no longer than 100 words. It should be in simple English." Or you can say, "They should be vetted by somebody called Privacy Seal Organization." To say, for example, that organizations and governments should take notice does not have much effect. But you can come up with suggestions, actions, timelines, that could get the debate going. And I really would like to look at the granularity and the action item path for future to illustrate that point.

I also want to make a second comment. We had some very good discussion on child pornography. We have discussed this issue. It's a mature issue. Brazil is doing

a lot of work on it. ITU is now moving. Get it off the agenda. There's already progress made. And I'd like to see more of that nondiscussion.

FROM THE FLOOR:

Just a small suggestion for the next IGF. When you talk of the next billion or the last billion or the last million or the last man, the ultimate objective is to make the whole process more inclusive for his or her social and economic evolution and betterment. And in that context, the suggestion was that if we tried to make this process a little more descriptive and more substantive and put more meat, then maybe for the next IGF, if we could have something on the contribution of the Internet or the IGF process to the achievement of the Millennium Goals, which you are well aware of, which talk of certain standards and certain indicators being achieved by the whole world, that would probably give us a complexion from the topmost macro level issues two micro issues which directly affect human beings.

FROM THE FLOOR:

I'm from the University of Aarhus. We all know that the mandate of the IGF includes discussing emerging issues. One of the emerging issues is the Internet of things. If we go back to Tunis, nobody talked in the WSIS about the Internet of things. It was raised for the first time in the last IGF. This year, we had two workshops on the Internet of things. And at the end of the two workshops, we created a dynamic coalition. I think this is a very good example of how you can measure success of the IGF, because, you know, without this platform, probably all of the various partners would still be sitting in their silos. The business sector would go forward with the RFID, civil society would express concerns about privacy, governments would have their own conferences and discuss this issue which probably they do not really fully understand at the moment, because nobody knows what is really behind this concept.

This forum here has stimulated a debate among the various stakeholders and has created a space where the stakeholders have met, and in this dynamic coalition we have now 10 members, two from the technical community, two from the business sectors, two from governments, two from civil society and two from the academic community. And I think if you look for an outcome, probably this dynamic coalition can produce in the years ahead, in one, two or three years' time, a practical outcome, probably a recommendation. But this is then among the people who are really involved. And I think this is the beauty of the IGF, it enables such processes, in particular, with regard to emerging issues.

FROM THE FLOOR:

We just heard some time ago that there has been a mention of not including any discussions regarding child pornography in the next IGF, or minimizing such discussions. We would be happy if there is no discussion, which means all the solutions, all the recommendations that have been put forward have worked perfectly, and in the next IGF, we would come up with all the solutions hand in

hand. So I would really love to see that happen. And if anybody has any other proposals of not including discussions, as far as I remember, according to the action points detailed on the WSIS agenda under the ethical dimension of the Internet Society, protecting children was one of the key components. And we cannot deny the fact that Internet plays a big role, and we do need to take action on it.

NITIN DESAI:

If I may reply, the speaker never meant that we shouldn't take action on it. What he meant to illustrate was that there is always some progression, that we always move a little ahead, and we should recognize that. Would you like to just quickly clarify?

FROM THE FLOOR:

You have put it very succinctly, but I could also add I used the words "child pornography." I did not use the words "protection of children on the Web." There's a whole variety of issues out there about protection of children on the Web. I was just trying to illustrate a point about this platform. We do not have negotiated outcome. We bring multistakeholders together, discuss issues, generate interest and hope through this process governments and all stakeholders will take effective and positive action. I used child pornography as an example to say that now Brazil, UK, many countries and international bodies are already effectively moving into action framework. So, therefore, to me, that reflects progress and even though we don't have a negotiated outcome, the effective outcome is to bring to the attention and to influence and to synergize actions from relevant quarters.

FROM THE FLOOR:

I'm from the Association of Progressive Communications. I'd like to echo the earlier comment that the IGF represents a really unique, seminal space to discuss about complex and difficult issues with a variety of stakeholders and that the problems are in its granularity and not in rhetoric. So while we acknowledge maturity in some discussions, we must also acknowledge oversimplification, conflation and polemical positionings of complex issues, like safety, protection, privacy, content regulation and harm, and that the diversity of all stakeholders must be taken into account and that no shortcuts in analysis or knee-jerk reactions are taken, that learnings do not become wholesale importing of models and policies, because the implications can be very damaging, sustained and long-standing for those whom we have missed out, ignored or misheard, such as the women living with HIV-AIDS, trafficked women and sex workers. So I urge that for the next IGF, that we actually broaden this space to enable deeper discussions and bring in the participation of people that we don't usually see through things like e-participation, for example, and that there will be more colors amongst us.

FROM THE FLOOR:

I'm from the Information Technology Association of America, and I'd just like to make a comment perhaps a little more on the logistic side of looking forward to IGF in Egypt. Mr. Brueggeman spoke earlier about one of the positive things that has happened in some of the workshops is that the discussion has been very interactive. And those have been productive, because they include discussions amongst the various stakeholders. And this session is probably robust because I don't know if there's any conflict with workshops. I know that scheduling and the logistics of what workshops take place when and which sessions take place when is extremely difficult. But I would urge the organizing committee and the Chair and the secretariat, with the stakeholders, to think about ways to have less conflict with main sessions and workshops throughout the schedule of the IGF.

FROM THE FLOOR:

I'm a Member of the British Parliament. Although I've been involved in technology issues and the way they impact upon people ever since I've been a Member of Parliament, for 16 years, this is my first IGF. And I echo the observation by the gentleman who spoke earlier from the University of Aarhus in Denmark. One of the richnesses of this forum is the way it brings together people who would normally operate in silos. I think that's incredibly valuable. And one of the things I've got out of this event is being able to mix with people from different parts of the stakeholder community seamlessly. And I think that is incredibly valuable. And that's something that the IGF should continue to develop.

I share the view that was just expressed. It was a very crowded space. It was like going into a restaurant with too many choices on the menu almost. I found myself torn between one workshop and another. And at one stage, I even noticed that one of the presenters was speaking simultaneously in two separate events. So I think the space is crowded and we do need a little bit of work done on how to timetable some of the events to get the best out of the expertise that's gathered together here today.

Just a couple of points, to reinforce the point that my colleague made about engaging with young people. I was privileged to run an event like that, not to do with the Internet, but using the Internet, bringing together a school in Budapest and a school in London, using an expert moderator. It was actually on the subject of the 50th anniversary of the Hungarian uprising. And it was a very emotional event. And those children got a huge amount out of listening to the expert speeches and then contributing in a dialogue afterwards. We can learn lessons from that sort of thing. It has been used in the Internet space many times before. And perhaps the IGF in Egypt can consider that kind of vehicle.

Now, the first panelist this afternoon used one word that nobody's commented on. That was the media. The media is changing in this seamless, mobile world that we live in. And it is changing quite fundamentally. We see news broadcasts going live that are pieces of film that have come out of somebody's mobile telephone and impacting upon our lives instantly without any interpretation from professional

journalists. We see new forms of media emerging every day almost. It's a rapidly changing space and is fundamentally changing the world of the media. And, therefore, I think it may be of benefit to consider having a stream that examines that part of the work, not just journalists themselves, but the journalists mixing with technologists, with civil society, to look at this changing world of the media in the mobile age we live in.

FROM THE FLOOR:

I think the feeling across the whole IGF has been quite strong that the IGF is a unique experiment in multistakeholder governance and that three years is too short a period of time to come to a conclusion about whether that's the way to go or not. And, therefore, the exercise next year more in terms of assessing what we can do to make it more effective, whether it should be an evaluation or something, is a question that I have for myself. But, obviously, there are things that we can do to make it even more effective. And I have a specific suggestions to make in that regard. The suggestion is also discussed in quite a few workshops and the main sessions here as well, which is that the IGF is a once-in-a-year kind of forum. People meet here for four days. There's enough time to listen to one another but not enough time to come to some kind of reasonable consensus on the issues we face. One gentleman mentioned you have data sharing happening one place and data privacy in another and there isn't enough time to put it together. And I think that perhaps we need to move from an institution-based focus which we have been seeming to have in the IGFs, for example, we discuss is ICANN the right body, is ITU a better body? But maybe we need to move from that to issue-based focus, where we pick up an issue like data privacy and data sharing. And then you have a group of people spending considerable amount of time discussing pros and cons. And this, of course, would be a multistakeholder group that will go into it. We have a very excellent example of this that happened as a part of the WSIS process, which is the Working Group on Internet Governance that was chaired by yourself. And I think the document that this group came out with considered diverse opinions of various people at the same time, because it gave some kind of direction to Tunis. And I think between now and Cairo and Cairo and the last IGF, if we can set up specific working groups on identified issues, I think we will be able to make significant progress.

One issue I would like to suggest, and that is, again, coming from discussions that have happened in various workshops, we just look at a rights-based framework for Internet governance. And people have said that if inclusion is what we should focus on, if inclusive information society is what the Declaration of Principles called for, the next billion is maybe not the right term. We're looking at the last billion, we're looking at everybody. And I think this allows us to address some concerns that people have raised. Why are we seeing more people here, more people from the civil society here? When we start talking in terms of making sure that the last woman and I'm sure the last person will be a woman and not the man, so maybe we should change the term – the last person who will get connected is the person we should be focusing on. I'm sure you will find more from Africa, Latin America and

various countries and Asia. I was very surprised that in India, the civil society movement is extremely strong. It's very thriving and vibrant. We hardly see any here, including, you know, Hyderabad is a place where there are so many organizations. So I think by changing the emphasis, by bringing issues that are of concern to various people in humanity into the discussions here and giving people sufficient time to start listening and start trying to work out issues, it will make the IGF far more effective than we have it today. Thank you.

FROM THE FLOOR:

Several people here have been drawing attention to the importance of having a wider stakeholder involvement in the IGF. The lady who was an MP from the UK said we should think more of the concerns of citizens. The intervention that was just made did the same. I would like to briefly draw your attention to an open letter that has been circulated here in Hyderabad and which has been signed by 109 organizations from civil society from all over the world and also by a number of individuals. Many of these organizations are from the global south. Many of these are grassroots organizations. Very few of them are actually present here. And all of them ask the IGF to pay attention to a particular issue. I don't want to read the complete letter. But I would like to read the paragraph that has the key demands. And the paragraph says, "We strongly urge the IGF to directly address the following key global public interest and policy issues: the increasing corporatization of the Internet, increasing proprietization of standards and code that go into building the Internet, increasing points of control being embedded into the Internet in the name of security and intellectual property violations, and a huge democratic deficit in global Internet governance."

Some of this letter is written in a language that is very different from the language that is spoken here. And I mean in terms of vocabulary. I know that makes it sometimes difficult for people to relate to. But I think if we are serious about being a multistakeholder venue that wants to be inclusive, then we have to go beyond those kind of restrictions and we have to try and be open and address these concerns as well. I feel that the considerable attention for human rights in this IGF, and hopefully even more in the next IGF, some of that has been hit there. But I do hope we will continue to build on this and take the considerations expressed in this letter as well.

FROM THE FLOOR:

I would like to suggest maybe a way to get out of the lack of, I will say, purpose that some stakeholders are now feeling. One thing is to have an open assembly is very good so that stakeholders meet one another. Now, for that they continue to meet, you need to bring forward, in fact, some more tangible issues, some tangible ways. And as you know, from the very start, I suggested to fully implement the mandate of the IGF and to have the possibility to make recommendations on emerging issues. One last year, the Dynamic Coalition on Linguistic Diversity, was only coalition so far that made a recommendation. Now I suggest that all the dynamic coalitions can make a recommendation, and this recommendation shall not be recommendation of

the IGF, but listed as a document of the IGF as recommendation at the IGF. So at least we'll make some little step-by-step progress.

FROM THE FLOOR:

I'm from MAAYA and ICVolunteers. I would like to emphasize what some of the others have said as far as this IGF has been concerned. Of course, challenges do remain. And in terms of the Dynamic Coalition for Linguistic Diversity, I think what has been very encouraging precisely is to see that languages have gained in importance in this space. And maybe one of the objectives for the future would be to see how, instead of having 350 languages, we could have 3,500 languages in cyberspace. And doing so, also how we could maybe include more some of the communities who have not been included enough in this space and dialogue, which are the linguists, bring together linguists and technicians, and also maybe build on some of the examples of very good participation that have been included here, for example, in the session by UNESCO where questions were taken on a distance basis, where more dialogue was given rather than just presentations and monologues. Maybe even more build on that remote participation in order to further include those 106 organizations that were, to a great extent, not here and signed the open letter, to broaden the inclusion of who can participate in IGF.

FROM THE FLOOR:

On behalf of the International Chamber of Commerce and the members of the BASIS initiative, I am pleased to express that we would like to welcome the Dynamic Coalition on Multistakeholder National and Regional Initiatives and express our support for this dynamic coalition as it evolves. As we have stated before, the national and regional level multistakeholder dialogue on these issues will enrich the experience of the IGF at the global level, and we look forward to helping to motivate business from around the world to participate in those initiatives.

FROM THE FLOOR:

I'm from Nokia Siemens Networks. I have been very active both as a member of the Multistakeholder Advisory Group in the first two years and as a MAG alumnus and volunteer during this year in shaping and supporting the IGF in both developing its processes and its contents. Allow me to highlight where I think we made progress in this grand experiment and where we can still do better as we go ahead.

When we started to embark towards Athens, we didn't know what would happen. In fact, some of my business colleagues were quite concerned when confronted by some civil society advocates on the issues of human rights. Well, I think we made a lot of progress here. Instead of confrontation, we see collaboration. I participated yesterday in a workshop on human rights and Internet governance, and engaging, I can tell you, is much more fruitful in the long run than blaming and shaming. So we are making progress here. We are all seeking no longer to make statements for publicity's sake but the success of the IGF is to allow for this frank exchange of ideas, where we see commonly accepted solutions for the challenges ahead.

We have also made progress on the level of discourse. From 14 panelists in Athens staying still on the podium there for three hours, we now have interactive dialogue and even debates between the participants from the floor, showing the high level of understanding that exists in many participants. So clearly, on all those accounts, the IGF has worked remarkably well. And the multistakeholder nature of the IGF, the nature of not having to come to negotiated outcomes and the equal footing on which participants discuss with each other has surely contributed in large part to this. However, we can do better still in some areas.

We still have too many workshops. That's clear. We should encourage more workshop organizers to work together and to merge their workshops. Early announcement and encouragement, early deadlines would help to bring proposals in time and allow the MAG to encourage that. But clearly we need to provide for more focused interaction and less events competing with each other, although I am on record for promoting competition, but this is no contradiction here.

Also, I think we had the expectation that we would be able to go deeper in the issues, and we did succeed, but only partly. We could do better for the IGF in order for the IGF to be and to remain relevant. We need to recognize that there are different levels of understanding among the participants, and we may need to have some entry-level workshops and some graduate degree workshops, if you may like to use the academic comparison. Entry level is to take those along who may be new to the process, and graduate level would be for the experts who expect more than just the general discourse that we have had in the previous years. So that is in order for everyone to seek to go to the level of depth in the discourse that they feel appropriate for themselves.

The main session workshops were, by and large, successful, and this experiment has worked in allowing workshop organizers to organize the main session workshops. There was a difference in the main session dialogues, however. Some were excellent, especially yesterday afternoon. I encourage we further study whether this could be a model for open debates in future dialogues. However, other open dialogues didn't work as well, especially when the moderator didn't take the time to prepare adequately.

On content, I think the issues of access and openness, of diversity, multilingualism, of security, safety, human rights and privacy, critical Internet resources and human capacity building are still important and relevant. And the next two IGFs should again seek to go deeper in the issue of relevance within these broad baskets. These affect our business, especially of course the access business where we are developing concrete solutions to bring Internet to the next billions of people.

As we go forward, we should seek to encourage similar engagement of multistakeholder dialogue on the national and regional level such as those we have heard about from the Latin American, African and European regional dialogues.

FROM THE FLOOR:

I would like to give you one observation which I hope is true. If I look back to the origin of these series of Internet Governance Fora, it was a very big crush of interests at the World Summit on the Information Society. And if I remember correctly, it was something like a dirty word in Rio to talk about enhanced cooperation. So we were just talking about critical Internet resources. What I understand from here is we are talking in a much more open way about the divergent interests, calling them enhanced cooperation. And this is what I observed, my personal opinion, and it gives me some hope for the future. If we can achieve, during the next Internet Governance Forum, to speak even more precise and more articulate on our real interests, I hope we will be able to pave the way to talk, really, also in a more formal way about possible solutions in the future.

FROM THE FLOOR:

I'm from France. A few points, rapidly.

First of all, to express that in all the discussions we had among the European Union members, we all agreed that we wanted to express very, very strong support, not only for the IGF and the Secretariat, but for the process that has been going on for the last three years. Because fundamentally, it is the unique global multistakeholder space to discuss Internet governance. There are many other entities that discuss those issues, but this is the main watering hole where, every year, we have the opportunity to share among ourselves.

A few concrete suggestions regarding what happened this week.

The first point is that the new format that was decided for this year for the main sessions had basically two benefits. The first thing is that the three themes were really helping to get together issues that were previously treated separately and broad dynamism. And particularly in the second day, where the different issues were responding one to the other and bringing security, privacy, openness and all this together in the afternoon. The second element is that the format of the main room and the panels was clearly bringing more benefit to the people as we can judge for the attendance. So much so that this year, for the next year, might have a problem of articulating the spaces where last year we were afraid that the main sessions would be empty. So it's a progress.

The second point I wanted to make is that in choosing the three tracks, we have actually done something that is very hard to accomplish in traditional international organizations, which is reclustered of the issue and making it an evolving agenda. If you look at the structure of the themes between Athens, Rio and this year, it has evolved. We have regrouped some subjects, we have organized it in a different way. For those who participated in September to the discussion on how to organize the follow-up to the WSIS, we are rigidly bound to the action lines. And these action lines are negotiated text that we cannot touch without re-opening the whole box. It is a major distinction. This capacity to have an evolving agenda should be used as much as possible based on the emerging issues session as well.

A third point is about the maturity of issues. The IGF should allow issues to move from the mapping stage, where we explore the different dimensions, to basically the setting the goal or developing consensus on a goal, towards – and I take Stephen Lau's expression – synergizing action. I think what he meant, and correct me if I am wrong, by talking about the child pornography is that we have actually moved now to a sufficient consensus that this must be addressed that we can get, next year, into a more active format. And I would like here to make a suggestion of format. Some of the rooms here large square tables which can host about 15 people. Could we explore a format that would be a group discussion, a public group discussion, on this issue, for instance, picking 15 actors who have been active in the last three years in one category or the other and make them exchange on how to cooperate better later on, operationally? One suggestion.

A fourth point is, yes, let's not fear the multiplication of dynamic coalitions. I can imagine that people are saying, "Wow, another dynamic coalition." I want to mention that, this week, a certain number of dynamic coalitions that have been created separately have decided that actually they can merge or cooperate or restructure themselves. This is another illustration of the capacity of organically evolving the groups in a much more flexible manner, that any setting up of working group, task force, study group that we can have in other systems. And this is another benefit of this organic network. On dynamic coalitions, a last point. It apparently works best when the actors are not only sharing an issue, but when they have a common goal with problems of implementation, or a common issue but opposing approaches. If you have a common issue that you are interested in but nothing you want to do or no problem to solve, the dynamic coalition is not dynamic enough.

And finally, in terms of formats of panels, we have almost unvoluntarily this morning explored a sort of hybrid where you have panelists who could make an introduction and then a discussion back and forth, which was sort of intermediary between the panels and the afternoon session. We could envisage next year to have this kind of format where we had a three-hour session but with a small panel introduction and a discussion afterwards.

And finally, I am very personally pleased with the interaction that took place on the national and regional IGFs. I'm very happy that it is gaining some traction. And I hope the IGF network will develop nicely in the next year.

FROM THE FLOOR:

I'm with the Dynamic Coalition on an Internet Bill of Rights. As was just mentioned, we are thinking of merging with another Dynamic Coalition on Frameworks and Principles, and in that context we are thinking to rename ourselves to be the Dynamic Coalition on Internet Rights and Principles. That is just as an introduction so when you see a new name, that this is the background. I want to make some comments on the procedure and then one important point on substance.

What we heard in our session, where we were sort of trying to do a needs analysis, asking all the different dynamic coalitions how they can mainstream human rights in

their work, we heard some interesting points, in fact, from a participant who asked, 'Am I speaking in my own capacity or am I speaking as a representative of Siemens?' I think this is an ongoing problem we have with the multistakeholder approach in the dynamic coalitions. We found the solution to say we have government representatives as full active participants, so they can speak for themselves, but obviously we have this connection to the governments. This is how we want to move forward. But I think it would be very helpful if the Secretariat could find ways to standardize the way that the private sector representatives and governments participate in the dynamic coalitions.

I want to second the suggestion to have roundtables that are output-focused so there are results coming out of the dynamic coalitions, there are results coming out of these expert groups sitting together and working. And also in that regard, it would be very helpful if the dynamic coalitions could work with the Secretariat to look at what kind of formats and documents are reasonable in this regard.

Lastly, a point on substance. The Italian government has kindly offered to host a midterm meeting in between the years where we can discuss rights and principles in the context of the Internet. And I think that will be good to produce some input for the next year's IGF. And in that context, I would like to ask MAG and the organizers to consider how we can give rights and principles an adequate format in the form of a main session or naming it as a key theme of next year's IGF.

FROM THE FLOOR:

I'm from Sify Technologies. I submit to you that we seem to have reached an inflection point for the IGF process itself. We have been through three IGFs, and for us all to meet physically like this there are limitations and that means a whole host of multistakeholders out there who are not included. Therefore, it was wonderful to see what was happening in Europe and LAC and Africa in terms of regional IGFs. But that really is the way forward so that it becomes a groundswell of movement across the world which feeds into the IGF here. That's one point I wanted to make.

The second is governance of the Internet is dynamic by its very nature. So the IGF forum as a platform for exchange is very, very valuable. It is not a forum where we take finite decisions, but where we exchange and carry back to wherever we are and implement or execute. The Internet by its nature as it evolves is going to lead to many more demands in terms of how it is governed. And this forum and the moment that it unleashes across the world will be the dynamic response to those demands. At least this is what I believe. So really the journey is the destination and not any kind of a resolution that we take at any point of time, but in the learning, the exchange and the implementation.

The last point I would like to make is that given the nature of this, it's time that we use the IGF Web site itself as a platform for exchange. So that as this moves as a movement across the world at national and regional levels, they can feed into that site as a platform, can discuss, can post success stories and so on and so forth. So when we come back here together, it's that much richer.

NITIN DESAI:

On your point about the journey being more important, Robert Louis Stevenson said somewhat pessimistically once, "To travel hopefully is better than to arrive."

FROM THE FLOOR:

I'm from Switzerland. And normally Switzerland supports and does about 95% what the European Union does and says. At this time I want to join to 100% to what has been said by the EU Presidency. I think they are good proposals and good judgments. I also would like to support others who think that the IGF should remain a discussion platform, an open discussion platform, but that the outreach should be strengthened and we should try to get more action and more tangible things around the IGF, more influence on institutions, more actions from dynamic coalitions and spontaneous bottom-up initiatives that try to go for solutions on the issues we discussed.

Another issue is that my personal view was that there were too many simultaneous events. I was, by far, not able to follow at least a part of what I wanted to follow. So maybe we could think of having less events, continue to merge even more strongly the workshops together so that we would be more able to follow the discussions. And as we have been very happy to help out the Council of Europe that could not be here for the reasons that you know, I am also very happy to help out the Presidency of the European Union to bring up an idea that the representative forgot in his speech, which I think is a very good one. So that maybe for the next IGF we could not call for workshops, but you could call for issues and then see what the issues are that come up. And that would help you to force people to merge their workshops on the issues. And maybe you define the number of workshops according to the issues and then try to bring it to the people.

And lastly, I would like to thank Wolfgang Kleinwächter, Avri Doria and all the others who were working on the book that has been distributed a few days ago. I think this is a very valuable thing, and we would encourage you to find the resources. And so whatever you need to come up with a new book on the highlights of the IGF, even earlier than this book.

FROM THE FLOOR:

I'm from ICVolunteers. Listening to the discussion, I think those who have played a leading role can really be proud of what has been achieved in terms of multistakeholder approach. And since this is the third IGF and there are going to be five, maybe there's going to be a next step after that, I would suggest that maybe one thing that was discussed a lot throughout the WSIS process, but we have gone way farther now in terms of multistakeholder approaches and processes, how IGF could serve as a model for other UN processes. Thank you.

FROM THE FLOOR:

I'm a member of the Board of Directors of ICANN. I'd like briefly take two words from your title – governance and forum.

Let's address governance first. Governance is one of the themes that I retain as I walk away from this meeting. We've had different approaches and interpretations to this concept. But what I found is that there is a greater maturity in the analysis and also in the proposals put forth compared to Athens or Rio. When I compare to Athens and Rio, I think that the approach is less one of confrontation and one that is much more about seeking solutions.

The second term that I wanted to talk about was the word “forum.” I think some have regretted that this forum doesn't lead to recommendations or resolutions. But, all in all, I think that it's exactly the fact that that specific characteristic that there is no point, no resolution at the end of the road, that's allowed everyone to speak frankly and openly. And I'd just like to say that, in my view, the success in Hyderabad is due to a number of factors. First, the quality of the hosting of the Indian government, which I'd like to applaud. Secondly, the efforts of all of you who have been responsible for organizing this. And, finally, I think that the success stems from the fact that the various communities here, represented here, are talking much more to each other rather than one at each other, one at another. So I think those are the reasons which explain the success.

NITIN DESAI:

The panelists have some quick comments to offer, a couple of minutes each.

GEORGE PAPADATOS:

Let me pick up briefly on the point that we should maintain the multistakeholder, no-results, nothing-written, free-wheeling notion, and then at the same time, we should try to reach out. This reaching out is something that I'm not very clear how it's going to take place. I could go back to Athens, to Taverna, talk to my friends about what happened here. I could write some letters to blogs. But is that enough? So the other trend of thought that emerged was to bring governments together, parliamentarians, so forth. What about the media? What about a way of getting the three most novel ideas across and have CNN, have the *New York Times*, *The Irish Times*, *The Guardian*, BBC, make a little reference? And so if there are any journalists in here, please come forward and tell us, what is the best way to get some of the messages across to a wider audience? I think press conferences have not been very successful so far. They work locally, nationally, but not worldwide. It's not only important to get additional members to join us; it is important to get the messages across. And the strongest I've heard was about the child protection. So what is the novelty about the child protection in the discussion here? How can we get this point across? I think that will help the IGF a lot.

KATITZA RODRIGUEZ:

I would like to highlight the privacy debate, that is the openness, security and privacy. I agree with many of the comments that were raised today, like, we need to discuss in a format that needs to be short, simple and by cases as well as to try to enter into the details of the tension to show exactly which are those tensions that are in place and which are all those positions of different stakeholders on the issue. Sometimes there will be conflicts, but those tensions or conflicts should not be seen as something negative. Those confrontations are good in order to improve ourselves and be able to arrive at a solution. So I would like to highlight that the granularity and showing the tensions in the main session in specific topics. In general, it's something very good in this process in the IGF.

N. RAVI SHANKER:

The IGF, really, is a tale of three cities, from Athens, to Rio, to Hyderabad. I am sure that this continuity and change will keep going, continuity in the sense that some of the issues that were discussed in Athens, the four principles of access, diversity, openness and security, have continued through the next two IGFs. We then had at Rio critical Internet resources. And if I may add, at Hyderabad, the term that seems to have enveloped all is enhanced cooperation. This really is an interesting tale in that sense. And I'm sure that onward towards Cairo, the continuity will be there, but there will also be change ahead in Cairo. I would like to look at this aspect of the "Internet for All" where the last man standing is looked at as the person who ought to get onto the Internet bandwagon, if one may call it so. I did notice that the delegate here mentioned, it may not be the last man standing. But I hope that we would be very gender-sensitive to see that it will be the last man who is standing and not the last lady who is standing.

NITIN DESAI:

I think this has been a valuable exercise, particularly in guiding our work on shaping the next meeting and the meeting after that. There's also the review process. I don't think I can summarize the rich discussion, but just some of the reflections which arise from that.

When I talk about Internet governance to people who are not involved in it, in Delhi or elsewhere, their eyes glaze over, because they don't know what I'm talking about. They don't know what the issue is. I think we have recognized this. We have not defined our agenda in terms of the technical dimensions of the Net. It is as if, with printing, you would say that the most important issue you need to discuss is the chemical composition of the ink and the nature of the lead type and the weight of the platen that you use, when we know that the real issues with the development of printing are not those, but the impact it has on society, on politics, on the economy. Similarly, we have moved from a definition in terms of the logical or physical infrastructure to some terms like access, diversity, security, openness, even "critical Internet resources," terms which are more in the province of social analysis, political analysis, economic analysis, not terms which are purely technical. You cannot talk

of access purely as a technical issue. You have to address basic issues of society, of politics, of economy. Similarly with diversity, with security and openness. So we have moved from the technical, in a sense that we started with the engagement of the technical community. But by moving in this direction, we have engaged many others who are involved in the use of the Net. I think we also need to start moving from the other end.

There's a larger community of people out there whose primary interest is the use that you make of the Net. If you go out there to the village, what you will see, let's say in India, is people talking about, "Oh, I got my passport through the Net," or "I got my birth certificate through the Net," or "I get my pension through the Net," or "I can access my land records through the Net." This is what your ordinary citizen is interested in. What we have to do is connect that with our agenda. To say that, yes, you are accessing land records on the Net, therefore, issues of access matter to you. It does matter to you, is this available in your language, which is where diversity comes in. Is it security? Can somebody steal that data about your land records when you're getting it done? And issues about openness, but also, do you have a right to access this land record which is held in this government department up there? So we have to also move from that end to this middle ground that we are occupying in the Internet Governance Forum to fully engage those whose primary interest is the use of the Net and to say that these issues that we are discussing are relevant and salient for your interests and your concerns. I think then we will be able to reach out and attract a much larger community into this whole process of Internet governance. And this, incidentally, is how Internet governance was interpreted even in the report of the Working Group on Internet Governance. We started with this. And it is for this reason that we have this forum.

Please also recognize that once you put it in these terms, there isn't an obvious place somewhere else where these issues are being discussed. Yes, the technical mention of diversity may be discussed in the groups which are talking about Internationalized Domain Names or multilingualism. But is that all there is to diversity? Where are issues of access being discussed? Yes, issues of costs of access will be discussed in the context of ITU. But is that all there is to access? There's much more to it. Where is the totality of the issues which affect access being discussed? What of security, cyber-crime? Yes, there are places where this is being discussed. But what about the balance between security and privacy, which was the focus here? I accept the point which was raised that privacy is not just an issue in the context of the contrast with security. It also is an issue which is independently of importance. But where is that being discussed together? So please remember that this forum is important because many of the things we have been talking about here are not being discussed anywhere else. And that's the importance of this forum. What we need to do is to connect what we are talking with what people otherwise are interested in. This means we have to address the connection between our work and the uses that people make of the Net, whether it's e-governance, e-health, whether it is commerce, whether it is media or whatever. And reference was made earlier to the convergence between media, electronic media and Internet.

My second point that I want to make is how we operate here. Many suggestions have been made. One class of suggestions is on participation, which I think we should take on board. Part of the challenge of participation is to explain our agenda in terms of what are other people's primary concerns. If we explain our agenda not just as something which is a translation of the sorts of things which get discussed in Internet technical forums, but also as a translation of what gets discussed in forums with ICT for development. We are not going to talk about ICT for development here, but what we say is, what we are talking about is relevant for your capacity to deliver e-education, e-health, e-governance, and therefore you should be concerned and take an interest in this area.

So we have to come from both ends, the technical end and the users of the Internet end, to this middle space that we occupy. And if that is the case, we will reach out. But we do have specific challenges of engaging governments. We have a specific challenge of engaging parliamentarians. A lot has been said about young people. They are the primary users of the Net. They are far more adept at using it than most of us here are. And certainly we have to find ways of engaging them in something which is not just formalistic. Not a young person as a professional young person, but, really, something which is really, here is what they do with the Net, what their concerns are, and let us see whether we have a way of engaging with them to convince them these issues that we are talking about are important from their perspective also.

I also think it's important to understand how we talk here. One of the things we have to accept, that when you have a multistakeholder forum, stakeholders don't give up their culture that easily, the culture of formal statements by governments, the culture of protest by nongovernmental organizations. Why should you protest when you are a full member of the organization? If you think there's something wrong, well, you're a member. Do something about it. But, nevertheless, you will get polemics. What we have to understand is that we have to go beyond that into a dialogue of good faith, a dialogue you enter into where you are willing to be converted. You don't enter to proselytize, but you're also willing to listen and be converted, which is why I pose the question, is there somebody here who's going to go away with some particular view on Internet governance a little different from what it was when that person came here at the beginning of the week? So this willingness to be changed is what is important. I believe some of it is happening. What we have succeeded in doing so far is reducing people's apprehensions, reducing people's concerns, "Oh, my God, they're going to talk about this. This is going to mean unnecessary interference, et cetera, et cetera, unnecessary interference by governments or unnecessary interference by NGOs, or unnecessary corporatization," whatever. I think we have managed to get a little bit beyond that, and there is a much greater sense of trust, if you like, cautious trust, but trust, nevertheless.

I think the most important message I get from listening to all of you is a sense that we have reached a point of inflection, where defending what we do and the value of what we do only in terms of process innovations is not enough, that people say

now, "What's coming out of this?" Which is why the question, what are you going to take away from this? Do we have a process where people can take something away which is of value in the way in which they use the Net, the way in which they supply Net services, or the way in which they manage the Net? And I think this is an important question. There was a reference that we should consciously focus on searching for consensus, on trying to narrow differences through our processes of discussion and dialogue, not with the intention that we are going to become a decision-making forum, but that this process of dialogue and discussion helps in reaching decisions elsewhere. It's what, in diplomacy, we would call track two diplomacy, if you like, which now every diplomat knows is of great value in almost any process.

Many people have referred to something which I think most people accept as valuable, the fact that this process has spawned mirror images at the national level, at the regional level. I get the sense that many people think this to be a very valuable exercise and a very valuable product, the dynamic coalitions which have developed. And in some ways, as the last speaker said, this is acting as an exemplar of a multistakeholder process. And that's a very valuable outcome. That, in many ways, seeing this process, people feel, why can't we have something similar at a national or regional level? And in some ways this whole philosophy of multistakeholder engagement is finding expression at a level at which it can actually have a very direct contribution to decision-making. I'm not surprised that we have a very large delegation from Brazil. Brazil is one country which already has a multistakeholder system for the management of the Net. And it's an example of why having a multistakeholder system at the national level increases the engagement with the process of this nature. So I'm not at all surprised that you have such a wide and diverse delegation from Brazil participating in this process. Can we find a role for this in our process at the global level? Can we see the global IGF down the line as something which is a combination of what happens at the national and the regional level?

There's been reference to products. Can we design something where, at least in a few limited, well-defined areas where a process has succeeded in narrowing differences, finding consensus, we can come up with something which carries a certain legitimacy because it has come from a broader multistakeholder process in which the people who have ownership are not just governments, but governments, service providers, industry, NGOs and many others? Yes, it doesn't have to be done for everything. It may be done only in a few areas, like the example of child pornography. Should we be thinking in these terms? And I get the sense that people feel that it's time we started thinking about what do we get out of this process. We don't have to be a legislative process. All valuable products are not necessarily legislative products. In fact, sometimes the legislative products are of extremely limited value. The important thing is it must be a product which the people who have responsibility for decisions take seriously. And those people may well be Internet service providers rather than governments. They may have to take that seriously in implementing it. So I don't think we have to think in terms of

legislation in the usual sense of the term. But reflecting something which is a genuine consensus, how do we do that?

People talked in terms of net-based groups coming together, developing things. I think what all this is leading to is trying to look towards a richer contributory process to the global IGF, the regional, the national IGFs, net-based coalitions developing this work, the dynamic coalitions coming up with products, and creating a space where these things will be discussed. I would stress once again there are very few fora where these issues are actually being discussed in the breadth and depth that we are doing here. Segments are being discussed out of access, diversity, security, openness, et cetera, even critical Internet resources. In it's totality, it's not discussed anywhere. It's segments which get discussed here, there and in places. So we must exploit that advantage that we have of being able to bring these different things together.

There are many other things that I could have said. I will say them perhaps after more reflection when we meet in February in Geneva. But the broad message that I get is, forgive me for getting back to my boy and girl analogy, but the broad message is what we need to tell the boy and girl now is, "You have talked enough. Get a move on now and do something."

Reports of Workshops, Best Practice Forums, Open Forums and Dynamic Coalitions

Framework Policies

WS 3: Digital Convergence Beyond Technology: Socio-Economic Benefits, SMEs and Public Policy

Organizers: International Chamber of Commerce (ICC), its initiative Business Action to Support the Information Society (BASIS) and the Government of Finland

Moderator: Herbert Heitmann (Chair, ICC Commission on E-business, IT and Telecoms [EBITT]) and Head of Global Communications, SAP AG)

Panelists: Helani Galpaya (Director Strategic Development, LIRNEasia, Sri Lanka); Jyrki Kasvi (Member of Parliament and Vice-Chair Committee for the Future, Finnish Parliament, Finland); Natarajan Sivasamban (Global Head, Telecom, Media and Entertainment Practice, Tata Consultancy Services, India)

The panelists had an interactive exchange on the socio-economic benefits of digital convergence with a particular focus on public policy options to support and further SME opportunities. The workshop provided an opportunity for representatives of government, business, technical experts and civil society to share experiences and perspectives on the various aspects of digital convergence and on the impact of different public policy decisions on convergence and through it, on development and economic growth, especially in the SME sector.

Helani Galpaya pointed out that in the developed world the image of convergence is of a “fat pipe” carrying multiple packets of information into the home or office, and that information being accessed by various devices. However, in the developing world, various hybrid modes of using mobile phones and community Internet access points are playing a greater role in delivering the benefits of convergence. This is particularly true for those at the “bottom of the pyramid” but relevant also for SMEs. Ms. Galpaya described the example of a Sri Lankan entrepreneur selling accommodation to foreign tourists in tree huts. He makes use of the mobile and Internet access points together to be more efficient. He gains global reach and accepts credit card payments via a third party Web site while SMS messages alert him when he has a transaction so he can economize on the number of trips he makes on his bike to the Internet point. Ultimately, as the Internet speed improves, he will get access directly to his mobile and achieve even greater efficiency, she noted. So convergence of services (banking, publicity), devices (computer, mobile phone), et cetera, has taken place in order for him to operate in a globalized economy.

Natarajan Sivasamban stressed the importance of network-based, interoperable devices that can support a converged environment. Most cities in India have

reasonable bandwidth but just outside the cities and in rural areas there is still a problem. Regulatory constraints still exist but wireless (WiMAX) is a way to provide larger bandwidth in mobile technology.

When discussing how governments can help, all three panelists agreed it was important governments are careful not to create regulations that get in the way. Jyrki Kasvi referred to the French Minitel example, which forced choice on consumers and delayed Internet development for many years. Ms. Galpaya added that from her research the most successful examples in Southeast Asia and South Asia, which have extremely low mobile prices and low cost of ownership, have occurred where companies have been allowed to innovate to drive costs down. Governments have an interest in creating the basic or necessary conditions in furthering competition in these markets and allowing technology-neutral solutions and regulation. In Sri Lanka significant growth has been coming from wireless, yet punitive spectrum charges for WiMAX, relative to copper-based broadband, are creating an uneven playing field.

Mr. Kasvi pointed out that, on the other hand, lack of regulations can lead to separate market niches which do not foster convergence and favor the dominance of certain companies. In Finland the absence of regulation in health care computer systems led to the adoption of different software models, which created difficulties in exchanging patient information.

According to Mr. Kasvi, government is best placed to set a fair regulatory framework for SMEs and to provide high quality online services to facilitate business. In Finland farmers were the first profession to be totally networked because online services allowed them to focus on farming their land instead of lining up in government offices to fight for subsidies or services. He added that this provided a ready-made customer base for SMEs to step in and offer private services since all Finnish farmers were online.

Mr. Kasvi suggested more governments should open access to public databases to assist small companies and entrepreneurs test out their ideas (as is done in the US), or to foster public-private cooperation on some services, such as providing weather information to fishermen.

Mr. Sivasamban shared ways in which Indian business was innovating to help close the gap. While there are under 3 million broadband subscribers in India, there are 350 million mobile customers and 500 million people with TVs. His company has built a device that can be connected to a landline or mobile phone with a small infrared keyboard to offer customers a simplified, low cost entry to the Internet using their own TV set as monitor.

Ms. Galpaya summoned the positive role that governments can play in establishing basic infrastructure, for example Internet exchange points, by supporting the standardization of tools, by creating financing mechanisms for SMEs and by providing open platforms.

Mr. Kasvi discussed intellectual property rights in the context of convergence. IPR can be used to guarantee services, but they can be also misused as excuses to develop services which are not compatible with other companies' devices, taking the example of music providers in Internet. Governments should oversee that their IPR regulations don't limit SMEs' possibilities to enter into markets.

Participants agreed there are many opportunities to serve demand and that the value of convergence will increase greatly as content and applications develop to better serve the needs of users. Small companies can become innovative content providers and gain profit, provided that they have a fair deal with the operator. It was suggested that better revenue sharing between operators and content providers could further stimulate SME involvement in content development.

It was noted that there is a lot of ongoing research on the positive impact of mobile phone services on the economic productivity in the Indian context. Helani Galpaya pointed out that in many cases that document positive benefits of digital information (for example, to fishermen), the solutions are arrived at by private players and markets, not through centralized government action.

Convergence is mostly understood from technological points of view. However, one should not leave out the notion of social convergence, the ability to enhance the emotional well-being and individual benefits through various modes of communication.

Finally there was recognition that "Internet for All" did not mean every person had to be online but rather the benefits of the Internet should be spread as widely as possible to improve the quality of life – including basic provision of roads, water, health services and finance for low income populations.

Digital convergence policy implications and social benefits are being discussed in many international and regional organizations and forums including: ICC's Task Force on Internet and Telecoms, Infrastructure and Services; the European Information & Communications Technology Industry Association (EICTA); the European Commission; OECD and APEC.

This workshop provided a constructive multistakeholder discussion of practical examples that demonstrate where policy options are helping or hindering efforts to extend the benefits of the Internet and digital convergence, particularly for SMEs. Further multistakeholder exchanges at national and regional IGF events and other forums where these issues are being addressed will be useful in advancing capacity building efforts, spreading best practice examples and providing advice to governments in their policy formulation.

WS 15: Delivering Universal Access and Public Value of the Internet: A Goal of National Information Policy

Moderator: Thomas Schneider (Information Society Coordinator, OFCOM, Switzerland)

Panelists: Maud de Boer-Buquicchio (Deputy Secretary General, Council of Europe – video message); Haiyan Qian (Acting Director, Division for Public Administration and Development Management, UNDESA); Haja Sheriff (Business Development Director, Partnership of Technology Access, Microsoft, India); Frédéric Riehl (Vice-Director, Federal Office of Communications [OFCOM], Switzerland); Jonathan Charles (Foreign Consultant, World Affairs Unit, BBC, United Kingdom); Jagdish Laddha (Tata Consultancy Services, India)

The workshop discussed the following questions:

- What is the public value of the Internet, and what are the key public value elements of the Internet which improve the quality of our lives?
- Which services express or create them?
- How can the users and citizens have access to and make most effective use of these services?
- What are good – and maybe also bad – concrete examples of such elements of a public value of the Internet?

Following five key speaker presentations there was a very intense interactive discussion about the public value of the Internet and access as a prerequisite to it.

Question 1

There was a strong view that the Internet has a public value. The Internet has a great potential for improving the people's life in all aspects: economical, social and also political. It can enhance people's knowledge, improve people's health, social cohesion, create new business opportunities, improve the quality and transparency of government services as well as private services and it can improve democratic participation and participation of people with disabilities in society in general. A key public value of the Internet to society is also its interactivity. The Internet allows for an extent of interaction between all stakeholders that has never been here before.

In the discussion, the Internet has been regarded as an integral part of human activity. Many participants claimed that access to the Internet should be regarded as equally fundamental as access to television and radio. Any denial of access to the Internet was regarded as an impediment to the fundamental right to freedom of information and expression.

Several references were made to the Council of Europe's respectable work in the field of the public value of the Internet and in particular to its contributions to the IGF process.

Question 2

Examples of services that create or express a public value have been named and discussed, such as: better and more people-oriented government services, access to (quality) information through libraries and archives but also through public service media, the provision of community access points that provide people with information and new ways to create jobs. Many of these services are provided by

public authorities or at least funded by public authorities. Private sector services can also provide a public value. Sometimes civil society and community-based services can have an even higher public value than the respective public service, because they tend to be more people-oriented and bottom-up driven.

Question 3

Access remains a fundamental prerequisite for people to benefit from these services. Access to the Internet is still a great challenge, especially to developing countries. A lot of aspects of access were discussed such as access to infrastructure in developing countries, access for disabled people and other disadvantaged groups, the importance of access to services in the people's native language, et cetera. The relevance of these aspects vary from country to country.

Affordability of access, hardware and services is also a prerequisite for people to benefit from the public value. The falling of mobile phone and mobile service prices, for example, has had a big influence on the success of mobile services in developing countries.

The services (be it from governments or private sector) have to be driven by the needs of the users. E-Strategies and e-services of governments are only effective if they take into account the users' needs and take the users' feedback seriously.

Governments have to pay attention to the digital divide in a country.

Governments – in cooperation with other stakeholders – need to create a positive environment and help people to develop trust and confidence in the use of the Internet services. Otherwise users will hesitate to make best use of the services. Governments have to take the lead in providing services that are transparent and accountable to their citizens.

Empowerment and training of the users is also a necessary prerequisite.

There was also a rich discussion on the risks and opportunities of private-public partnerships. There is a great potential in PPPs in order to mobilize business resources to create public value through business services, creating a value for the general public, for example in the field of education and empowerment. But there are also challenges with regard to PPPs. Some people expressed concerns that PPPs can foster private monopolies and enhance the dependence of countries on big ICT companies. PPPs should take into account the relevance, affordability, accessibility and sustainability of the services they provide.

Some participants claimed that governments should take care that the rights of PPP services remain in public hands. Some also had the view that public services and information should not be offered only via proprietary but also via open source.

Many participants also expressed that there should be a regulation of standards that are relevant for having access to the Internet: "You cannot have access without standards and you cannot have standards without regulation."

Participants requested that developed countries would apply the same quality and regulatory standards to their international aid projects that they apply to projects in their own countries.

Question 4

Some examples that were discussed:

- Universal Telecommunication Service including broadband in Switzerland.
- PPP with Microsoft and the Government of Guatemala in empowering teachers and providing hardware for them.
- BBC online communities to promote e-inclusion of older people and other disadvantaged groups.
- Tata portals and telecenter initiatives that help to improve access to the Internet and create new jobs and business models.
- Accessibility standards for Web sites accessible to disabled people based on W3C standards are compulsory for all public federal websites in Switzerland. Application of these standards is also promoted for local public authorities and private services.
- BBC i-Player allows online access to all broadcasted TV content.

OF 73: Outcomes of the OECD Ministerial Meeting on the Future of the Internet Economy

Organizer: OECD

Chair: Ambassador David Gross (Coordinator for International Communications and Information Policy, United States)

Panelists: Peter Voss (Head of Division, International Policy for Information & Communication Technologies, Federal Ministry of Economics and Technology, Germany); Tom Walker (Director Europe and International, BERR, United Kingdom); Gulshan Rai (Director at the Ministry of Communications and Information Technology, India); Joseph H. Alhadeff (Vice President for Global Public Policy and Chief Privacy Officer, Oracle Corporation , Chair of BIAC's Information, Computer and Communication [ICCP] Committee, Vice Chair of ICC's Commission on e-Business, IT and Telecoms); Katitza Rodríguez Pereda (Public Voice Coordinator); Bill Graham (Strategic Global Engagement, Office of the President, Internet Society); Marcus Courtney (Head of Department, UNI Telecom Global Union)

The Open Forum reported on and discussed the main outcomes from the OECD Ministerial Meeting and the business, civil society/organized labor and Internet technical community fora, where they related to the themes of the Internet Governance Forum. In respect to governance this included a discussion of the multistakeholder participation in public policy processes as developed in the context of the OECD Ministerial.

Ambassador Gross opened the workshop by saying the Ministerial meeting had been one of the highpoints of his time working for the United States Government as the Coordinator for International Communications and Information Policy. He thanked the Korean hosts for their outstanding hospitality and the OECD Secretariat for their work in preparing the meeting. He underlined the importance of the Seoul Declaration to policy-makers in respect to ICTs and the Internet before turning to introduce the speakers on the Panel.

Joe Alhadeff said that the business community had found the Ministerial very useful by way of outreach across their community and to other stakeholders. He noted that highly successful one-day forums for the business, technical community and civil society/organized labour communities had taken place the day before the Ministerial which was the culmination of work commencing in 2006. He said the Ministerial had assisted to highlight within the business community the role of the OECD as well as an opportunity to provide an inventory of what they were doing in support of their recommendations.

Bill Graham spoke next as a representative of the Internet technical community. He noted that the community had coordinated input from 17 different technical organizations and been able to put together a common statement to present to Ministers. Mr. Graham stated the Internet is successful due to its unique model in that it is individuals who make the Internet what it is through local, bottom-up processes. He said the technical community's goals included preserving the ability to connect, to communicate, to innovate, to share and to choose. They hoped to continue to work with the OECD to encourage open and collaborative processes for Internet governance. Mr. Graham closed his remarks with some "take-aways." These were that preparing for the Ministerial with fellow organizations provided opportunity to: clarify working relationships and positions; hold exchanges on speakers, et cetera, with other stakeholders; have the opportunity to work with governments and contribute to background material. Overall he concluded the event had been an excellent way to show the multistakeholder approach will work.

Peter Voss, representing the German Government, highlighted some of the elements he felt were most important in the Seoul Declaration. In the view of the German Government, the Seoul Declaration is valuable for three main reasons: first, it would enhance awareness of the fact that the Internet economy is important for everyone's future. Second, it would raise awareness of the fact that it is not only the task of governments to shape the future development of the Internet economy. Rather, such key issues as the security of the Internet depend on collaboration between governments, companies, civil society and users themselves. Third, the Seoul Declaration will help us above all to define common policy objectives that we all agree are well-suited to promote the future development and security of the Internet economy – which is of such great importance to all of us. Mr. Voss particularly mentioned those sections dealing with ICTs and the environment as ones that deserve attention and action.

Marcus Courtney, representing organized labour, discussed how the follow-up to the Ministerial should address the global financial crisis. He called for an expanded

role for stakeholders, investment in next-generation networks and job creation, including in developing countries. He also underlined the importance of addressing human rights and collective bargaining rights in relation to ICTs.

Tom Walker, representing the UK Government, spoke about the positive message in the Seoul Declaration for cooperation with the IGF. He noted that Ministers had endorsed the participation of the OECD at the IGF and that he thought the organization had an important role to play in contributing an economic perspective to IGF events. He underlined the importance of this contribution in relation to debates of NGNs, the creation of market-friendly environments and consumer protection. He said the vision Ministers articulated was one of open borders, level playing fields, together with more jobs and wealth creation.

Katiza Rodríguez Pereda, participating from civil society, noted that civil society had coordinated the views of organizations from over 50 countries in putting together their statement for Ministers. She urged that there be greater civil-society participation at the OECD particularly in areas such as discussion on privacy. She said she hoped civil-society participation in OECD meetings would be formalized in the near future along with that of the technical community.

Gulshan Rai participated in the panel on behalf of the Indian Government. Dr. Rai noted that India had adopted the Seoul Declaration and already had found it useful in several areas when making ICT policy. Dr. Rai also talked about the importance of engagement for India in global forums discussing ICT policy and said the Ministerial had assisted them to initiate greater stakeholder communication. During the discussion period questions ranged across how events such as the Ministerial could help stakeholders coordinate their positions beyond national boundaries; how to empower users including in the area of privacy; how to make greater progress with the transition to IPv6 as requested by the Seoul Declaration, as well as how to further develop broadband access.

Dynamic Coalition on a Framework of Principles for the Internet

Chair: Parminder Jeet Singh (Executive Director, IT for Change, Bangalore)

Panelists: Carlos Afonso (Planning Director, Information Network for the Third Sector, Brazil); Milton Mueller (Professor, Syracuse University of Information Studies, USA; Member, Internet Governance Project)

Members: Alfa Redi (Peru); China Association for Science and Technology – CAST (China); Information Network for the Third Sector – RITS (Brazil); International Disability Association; Internet Governance Project (USA); IT for Change (India); Panos Institute, West Africa – CIPACO project

The dynamic coalition has the objective to understand, influence and contribute to the processes of making international laws, conventions, treaties, et cetera, in the area of Internet governance – both of the soft law and hard law varieties – incorporating the multi-stakeholder principle. For this purpose, the coalition will explore the possibility of civil society taking the lead in collaboratively developing

some overall normative principles for the Internet which can underpin such international processes, and/or themselves be adopted through a framework convention kind of a process.

The dynamic coalition will map out the objectives and work methods, apart from taking on a substantive agenda of exploring what kind of frameworks and principles will be suitable for guiding the global public policy for the Internet. It will also seek to address the possibility of engaging and merging with the Dynamic Coalition on Internet Bill of Rights (IBR) while seeking a common ground of converging issues for both the coalitions to strengthen and build upon the existing issues through a rights framework.

Parminder Jeet Singh commenced the discussions with an overview of the nature and evolution of the Dynamic Coalition on Framework of Principles for the Internet (FPI), while steering the focus of the panel towards the basic principles that ought to govern the Internet, such as net neutrality, and expressing concerns over the threat to the open nature of the Internet. He reaffirmed the DC as a space to look at possibilities for the evolution of principles, processes and structures. He also called upon the members to explore the possibilities for a rights-based framework and the principles that would emerge from the coalition to be reflective of the same.

Milton Mueller stressed the role of IGF to develop global public policy principles. He shared his experience of having worked with ICANN and its issues. He expressed apprehension at the working of GAC (Governmental Advisory Committee). He felt GAC was not a good idea as it represented the worst of both the worlds. Initially IGP (Internet Governance Project, a Syracuse University initiative) had suggested a Framework Convention of Principles for Internet Governance, where civil society and private sector could participate in framing global principles, but reverted from the idea of a convention, due to the broad area of Internet governance. Mueller suggested that one idea to move ahead could be to look at the issue of rights, especially individual rights, right to privacy, life and due process. This could make it more specific.

Carlos Afonso took the lead from Prof. Mueller to make a mention of similar efforts in Brazil to develop charters. The Brazil Internet Steering Committee, over the last four to five months, has been deliberating and working on issues of privacy, connectivity, net neutrality and 13 such other relevant principles. He also brought to the notice of members present that APC has a broader view of rights, focusing on individual rights.

A speaker suggested the need to discuss the grounding for the principles and expressed the need to collaborate with other groups to get this grounding on issues of openness, diversity and participation. This could further help in building a coherent set of principles.

Lisa Horner (from the Bill of Rights DC) remarked about an emerging consensus between the Dynamic Coalitions of Framework of Principles and Bill of Rights. She made an observation on the number of overlapping issues between the two coalitions on issues such as interoperability and diversity.

Max Seneges reiterated the point that the work of the Internet Bill of Rights (IBR) Coalition is very much related to the Coalition on FPI and expressed solidarity and interest to work together.

Milton Mueller wanted to look at the merging of these two perspectives, rights of people vis-a-vis Internet based communications. He warned that rights could be very broad and suggested the need to ground it in the rights of people and gave the example of child protection rights.

Parminder Jeet Singh cautioned the panel and the participants not to overlook the tensions within the human rights discourse, individual versus institution. He stressed the need to factor in the different kinds of tensions in the existing approaches. He also expressed the need to accept and debate different approaches while talking about global realities where the political thinking is particular to a place and setting.

Suresh Ramasubramanian pointed out that there are certain common sets of goals between institutional perspectives and individuals. He also said that there is a need to engage with all kinds of agencies, while making a note of language and perception gaps between individual-based and institution-based approaches and reaffirmed that these need to be bridged through engagement.

The Chair for the Scientific Group of Rights (EU) spoke of the need to rationalize the approach of the DC. While encouraging different approaches, the focus should be rights-based plenary sessions. A critical and political mass is needed to push this. He stressed the need for both principles and rights and mentioned some basic principles already under discussion such as network neutrality, anonymity (privacy versus security), IP trace-back, deletion of all private data, et cetera.

A Member of UK Parliament felt the dichotomy in the context of new ICTs should be dealt with through an inclusive approach, allowing for diverse interests and perspectives. He also spoke of making the Bill of Rights principles-based.

Milton Mueller pointed that "Bill of Rights" is too legalese. He further gave an example of a discussion on network neutrality at IGF and how it was brought under the overarching principle of freedom of expression (FoE).

A speaker brought to the attention of the participants the APC charter, which she thinks is a good attempt to articulate human rights documents and make human rights applicable to the Internet.

Lisa Horner reminded that the dynamic coalition is a platform for debating human rights and not to legislate any specific rights.

Michael Gurstein made observations regarding the constitution of IGF and remarked about the participants and the issues being addressed as too narrow. He questioned the panelists and participants about mechanisms to address the priorities of the indigenous people and pointed out that there is neither any attempt at inclusion nor any outreach to bring in those perspectives into the debate and discussions at IGF. Such an attempt, he felt, would have a transformatory impact on

the outcomes of IGF. Suresh Ramasubramanian further raised the issue of realizing a model of bottom-up processes.

Prof. Wolfgang Benedict spoke of the need for the Internet community to have rules, and the rights-based approach, he felt, could provide a set of rules. The idea is not to draft a specific bill of rights, but to use what is already present to address the new issues of the Internet and do it in an inclusive a manner as possible.

Prof. Roman answered Suresh's query by bringing to everyone's notice that the Internet Bill of Rights (IBR) had been conceptualized as a bottom-up process. The IBR was conceived as a process of involving the Internet community and a multistakeholder representation. He emphasized that the process is critical and there is a need to confront ourselves on conflicting issues, for eexample freedom of expression and privatized domains of Google/Yahoo/Microsoft. He also drew attention towards the need to refer to the Universal Declaration on Human Rights (UDHR) and to interpret these rights in the light of UDHR.

Prof. Milton Mueller proposed that the DC merger should have specific goals such as a main session on rights at the next IGF. He emphasized the role of a set of values that should guide decision making and reprimanded ICANN's way of operating while taking decisions that affect the rights of people, without indulging in dialogues. He strongly felt that the national governments should also have a role in this process.

A speaker from Brazil felt developing countries are now consumers of services provided by transnational companies and this necessitates the need to examine newer approaches of looking at jurisdiction than currently practiced.

Prof. Milton Mueller, while acknowledging the role of national sovereignty, mentioned that the Internet has a scope for reducing/overcoming national frameworks, cautioned that local and national governments can also be obstacles and affirmed that he is very much for global frameworks.

Prof. Roman expressed a need to interpret national sovereignty. He brought to the attention of DC the disclosure requirements of the Global Online Freedom Act.

Max Senges of the Dynamic Coalition on an Internet Bill of Rights expressed that it is a platform to promote different kinds of rights approaches. He spoke of both of the DCs being complementary in their work as the goal is to bring heterogenous views on rights together and was positive about the DC merger and called to explore it further.

Parminder Jeet Singh reaffirmed the need to merge the DCs if a consensus had been reached between the Dynamic Coalitions of Framework on Principles for the Internet and Internet Bill of Rights.

Carlos suggested a convergence through the Internet Bill of Rights Web site and mailing lists.

Prof. Milton Mueller stressed the need to take concrete implementation steps while merging the two DCs. He felt the DCs should look at shaping the agenda at Cairo and also made a suggestion of focusing on only one right, such as FoE, for practical purposes.

Parminder Jeet Singh retorted by saying that as a matter of political strategy, focus on a single right may not be a good idea but rather look at rights as a framework, as a perspective. Hence he made a case for a broader agenda of looking at the IG issues.

Action Items

Explore working with/a merger with the DC on an Internet Bill of Rights through concrete steps such as converging the Web sites/mailling lists .

Bringing the rights issue into a main session at Cairo.

Internet and Human Rights

WS 77: Internet for All – Exploring a Rights-Based Approach

Moderator: Ms. Anita Gurumurthy (IT for Change)

Panelists: Dr. Abdul Waheed Khan (UNESCO); Anriette Esterhuysen (The Association for Progressive Communications); Brian Longwe (Kenya ICT Action Network); Dr. Michael Gurstein (Global Telecentre Alliance and Community Informatics Research Network); Radhika Lal (United Nations Development Programme); Ravi Shankar (Ministry of Communications and Information Technology, Government of India)

The workshop interrogated the meanings and politics of a rights-based approach to the “Internet for All” argument, with a thrust on discussing and developing policy principles and imperatives. Just as “Education for All” takes a rights-based approach to education and presents a nuanced view on the enabling conditions for providing education for all, the workshop aimed to develop shared understanding on the facilitating factors for a truly inclusive “Internet for All” approach.

The World Summit on the Information Society (WSIS) Declaration of Principles speaks of an “information society where everyone can create, access, utilize and share information.” In this context, the workshop was designed to explore if and how these principles may translate into a possible “right to the Internet,” and to debate the corresponding implications on policy. The workshop sought to address the lack of clarity on issues of universal service and universal access as related to the Internet, which are widely accepted as telecommunication policy principles in terms of traditional telephony. Groups like the Organization for Economic Cooperation and Development (OECD) have been grappling with definitional issues regarding universal access to the Internet, and the UN Commission on Science and Technology for Development (CSTD) notes that “a new form of digital divide is

emerging in terms of difference in quality and speed of access to ICTs.” Frameworks on these issues are particularly critical for the Internet since it involves areas of much more active, complex and differentiated use with multi-layered types of interaction and development as compared to simple connections through telephony.

Other issues explored from a rights perspective included a determination of the enabling conditions for realizing effective use of the available access to the Internet, with a considered reflection on the characteristics of the Internet accessed. Panelists highlighted how a rights-based approach to the Internet – or a “right to the Internet” – may include issues beyond access, and encompass enabling conditions such as training, capacity building and the development of the social, organizational and managerial infrastructure that can make access meaningful and useful. The “Education for All” initiative recognizes the significance of these conditions in moving beyond simple access to schools to include, for instance, the “right to learn in the mother tongue.” The relevance of the discussions at the workshop is also captured in the direct link to the issue of inclusive technologies, since an Internet for All would include groups needing special consideration, such as people with disabilities, whose right to access to “new information and communications technologies and systems, including the Internet” has been recently recognized by the International Convention on the Rights of Persons with Disabilities.

Ms. Anita Gurmurthy introduced the panelists and gave a brief overview of the objectives of the workshop.

As the first speaker, Mr. Ravi Shankar began with an overview of the Internet for All approach, drawing connections to the Health for All and Education for All approaches. The transformatory aspects of the Internet, reflected in its potential to bring about socio-economic change, underscore the necessity of providing access using a rights-based approach. He refocused the argument of connecting the next billion to that of connecting the last billion, and spoke of the corresponding policy push needed for last-mile connectivity. Mr. Shankar spoke about the Indian government’s Common Service Centre (CSC) program as a means of creating public Internet access points, where government services are front-ended on a computer with local entrepreneurs providing value-added services. He also addressed the crucial issue of costs for realizing the right to the Internet, highlighting how universal service obligation funds (USOF) enable telecommunications infrastructure deployment in under-served areas. With the increasing convergence of Internet, telephony and television, innovative technological solutions can enable Internet diffusion so as to reach the last man standing, he argued. Mr. Shankar concluded by emphasizing that Internet should become a public good with State provisioning, conferring on citizens the right to demand access to this public good.

Dr. Abdul Waheed Khan spoke next and focussed his presentation on UNESCO’s role in Internet access debates since the WSIS. He highlighted UNESCO’s argument in favor of knowledge societies that are inclusive and pluralistic, and are

built on principles of human rights and human needs. He additionally identified four other principles fundamental to knowledge societies:

- universal access
- freedom of expression
- respect for cultural diversity
- quality of education

Dr. Khan proceeded to discuss UNESCO's engagement with Internet governance (IG) debates, reflecting on the creation of the IGF post-WSIS as marked by a lack of clarity on IG issues. Despite initial skepticism vis-a-vis engagement, UNESCO recognised IG as a powerful emerging tool for knowledge sharing, dissemination and collaboration and called for the IGF to work on principles of access to a free flow of information and knowledge. UNESCO's positions are guided by the fact that any governance has to be based on a principle of openness, which can be realized through an open governance structure, especially for the creation of a multilingual Internet. Similar to UNESCO's Education for All with its human rights approach, Information for All is equally critical, and a human rights approach to information must place the Internet at the centre, he argued. UNESCO has recommended that any government with universal Internet access in mind should consider the four policy aspects expressed above, which are enshrined within a larger human rights approach.

Mr. Brian Longwe followed with a discussion on his work with the Kenya ICT Action Network (KICTANet), a multistakeholder network of members from civil society groups, the private sector, development partners and media. The network aims to act as a catalyst for reform in the ICT sector in support of the Kenyan government mission to enable citizens to gain maximum benefit from the opportunity offered by ICTs. He offered an e-inclusion perspective to the Internet for All debate, spanning issues of appropriate policies, capacity building, participation and best practices towards addressing the needs of marginalized people. Mr. Longwe narrated the history of the drafting of Kenya's ICT policy, where KICTANet partnered with the government for drafting a policy that consolidated multiple preceding drafts. KICTANet simultaneously developed a critical mass of people and resources to feed into policymaking processes of this and other policies in Kenya, like the ICT Bill, Electronic Transactions Bill, et cetera. Mr. Longwe detailed KICTANet's efforts at facilitating regional representation at the IGF through a series of national level IGFs in Kenya, Rwanda, et cetera. Debates and participants from these national forums were brought together into a regional IGF, and its recommendations were brought to the global IGF.

Dr. Michael Gurstein spoke next and rooted his arguments in the exclusionary nature of the Internet that must be adequately negotiated for achieving Internet for All. Referring to the effective use of the Internet to create systems and processes that drive the global corporation Walmart, he argued for community empowerment through the Internet that moves beyond simplistic notions of participation. He

posited that the Internet can allow communities to move out of their marginalization, necessitating that principles for increasing access to the Internet stay firmly rooted in the tenets of social and economic justice.

Dr. Gurstein narrated the trajectory of his own engagement with a rights-based approach to the Internet by providing an example of the Canadian province of British Columbia where applications for welfare schemes were made available only on the Internet, creating automatic exclusions for those without access or capacity to engage. A citizen has the fundamental right to access public services, and if these are on the Internet, it is the State's responsibility to ensure access to the Internet as a right. Although this example reflects the Internet as an opportunity to access services, Dr. Gurstein also emphasized a more broad notion of the right to the Internet for realizing goals of justice and equity.

Ms. Anriette Esterhuysen framed her talk within the challenge of moving from a broad notion of right to the Internet to a focused discussion of realizing rights and enforcing them. Using the example of civil society advocacy in Ecuador that succeeded in getting Internet rights into the Ecuadorian constitution, she spoke of how concepts of universal access to ICTs, open source software, use of social media, access to spectrum and wireless networks have become institutionalized. She argued that once rights have been localized, they are enforceable and the Internet rights movement should centre on this effort. She detailed the history of the Ecuadorian success as rooted in the long history of civil society mobilization around community media and communication rights struggles. WSIS created a space for multistakeholder engagement of this already strong constituency, where governments began to work with civil society to facilitate dialogue to generate policy. These were some historical circumstances that helped cement the Internet rights agenda in Ecuador.

Ms. Esterhuysen highlighted APC's work with Internet rights beginning in the '90s centred on freedom of expression. The focus has been on interrogating the complex conflicts between old and new rights, with interpretation, reinterpretation and localization into new contexts. This, she concluded, signifies a shift from a generalized endorsement of Internet rights, as in the WSIS, to a enforcement and meaningful realization of a rights approach made possible by the multistakeholder process.

A development perspective on Internet for All was provided by Ms. Radhika Lal, focusing on the implementation of rights, since access to the Internet is not framed in the abstract but is an everyday issue. She drew contrasts between the education domain, where infrastructure is not the central element, and Internet governance space, where groups with technological expertise co-exist with groups centred on socio-political issues debating definitions and rights. The Internet for All approach brings in a new set of issues, necessitating collaboration between both groups, which is often not easy. She identified the open source movement in Latin America as arising from a development approach to trade, rather than as a technical movement, bringing into sharp focus the need to allow for different vantage points and different contexts in the Internet for All movement. In this regard, she

advocated for taking lessons from the women's movement in the area of health, vis-a-vis national movements that influence global discourse and how the global discourse affects the national discourse. Governance discourse considers issues of process and links the national and global – rather than focusing on only global – to bring development imperatives into focus. She called for strengthening the engagement of the diverse groups interested in the access to the Internet argument, to find a way to transverse divides and realize an Internet for All.

Ms. Lal recognized the difference between a public service delivery argument towards the Internet, as in Canada where Internet-based service delivery preceded the right to access the Internet, and the entitlement argument where access to the Internet is framed as an investment in the future for creating enabled citizens. Usually the Internet is seen as a service delivery framework, and the rights violations on it are seen in terms of Freedom of Expression; but new arguments are also looking at access through traditional rights arguments. In this regard, a critical difference is made between the private sector and the State with the former positioned as a provider of products, while the State has the full responsibility in provision of access to the Internet. She concluded by strongly advocating that the Internet not be viewed as simply a platform for communication, but for holistic reflection of what it means to be a citizen in the information society.

Open Discussion

Mr. Hosnain Bokhari from Germany endorsed the citizenry framework to Internet for All, while critiquing a simplistic approach to multilingualism on the Internet. He called for recognition and reflection on local cultural and communication patterns prior to, and along with, the creation of Internet in local languages, which can be made possible by the engagement of anthropologists and philosophers. Mr. Roni Copen from the US argued against Dr. Gurstein's lens of analysis of Canada's Internet public service delivery as a basis of building a right to the Internet. He adopted a stance of outrage and denial of citizen's rights in being forced to access the Internet for public services, and posited a "right to not access" the Internet for accessing public services, or otherwise.

Dr. Anupama Saxena spoke from an Indian context and welcomed the implementation of the CSC scheme, and its linkage to a rights-based approach as made by Mr. Ravi Shankar. She however pointed to ground realities, where very few women are involved in running, and are visiting, CSCs. She argued that the rights-based approach to the Internet, in its current form, fails to be as inclusive as rights-based approaches in the area of other policies and programmes in the Indian sector. Ms. Lea Shaver from the US brought the discussion back to a global level, by calling attention to norms within the Universal Declaration of Human Rights that can extend and support Internet for All. She exhorted civil society to take note of legally binding agreements that countries have entered into, and frame the universal Internet access argument in that context.

Mr. Al Alegre from the Philippines presented arguments from a resource allocation and sustainability angle. He asked that Internet for All advocates delineate clear

recommendations on how to operationalize Internet access for seven billion people of the world and remain aware of the carrying capacity of the world. In addition to the sustainability angle, he also highlighted the issue of representation, in terms of the need for a domain name to get a presence on the Internet. Many people are forced to get generic domain names because of monopolies in ccTLD and artificial scarcities, et cetera. He extended this analysis to the goal of universal representation, which will necessitate development of principles to democratize certain Internet-related resources that are already in use.

Concluding Remarks

Mr. Ravi Shankar addressed some concerns from the audience by presenting the Internet less as a technological tool and more as a people-centric aspect, calling it “High Tech, High Touch.” For instance, if a villager is not fluent in English to engage with the Internet, rather than treating that as a problem, data interpreters need to come into play, reflecting the “high touch” aspect. He highlighted the need to be citizen-centric, with a simultaneous emphasis on gender sensitivity. He called for civil society to frame their advocacy and research from the grassroots perspective, to enable the CSCs’ apex body to strategize and prioritize based on articulated needs from the bottom up. On this point, Ms. Gurumurthy pointed out that the commercial interests of the CSC entrepreneur are often in conflict with the citizen interest of the community in the functioning of the CSCs.

Dr. Gurstein agreed with the shock expressed at the Canadian case of online welfare information, disagreeing however with the “right to not access” argument that came from the floor. He spoke about his work amongst marginalized indigenous people around the world, who are the most active participants in an aspiration for a right to the Internet since they see it as a way to equalize opportunities for themselves. The process of integrating the Internet and traditional forms is one that is taking place in very interesting ways and most effectively in indigenous communities because they have strong local cultures and knowledge forms.

Ms. Esterhuysen posited that framing of Internet rights is not very complicated – people need to have meaningful human rights, and this needs to also happen on the Internet; it is the reinterpretation and operationalization that pose bigger challenges. For instance citizen-centric governance clearly translates into citizens having access to information in their own languages, but development of the technology becomes difficult in the context of close standards that limit the extent to which rights can be exercised on the Internet. She encouraged rights activists to distinguish between the two areas of advocacy, where ensuring and respecting human rights is one set, and specific Internet governance arrangements that should be approached within the context of regulatory frameworks, is another. Mr. Sunil Abraham from India supported Ms. Esterhuysen by highlighting the example of intellectual property regimes and regimes of rent on intangible property like the Internet that cover the content layer, software layer and physical layer. Inappropriate intellectual property rights can increase cost of access, and further

marginalize groups of people, and these aspects must be considered in any discussion on a rights-based approach to the Internet.

Dr. Khan reminded the audience that the debate on IG does not happen only in the context of legal issues. Internet today is a critical aspect of the fundamental human need of communication, and is a platform to exercise people's right to receive information in the language that they are most familiar with. He pointed out that the "all" in Internet for All is a person, and not a collective being, signifying the importance of context and mother tongue. He restated UNESCO's position favouring multistakeholder partnerships, emerging from the belief that no single entity can effectively lead provisioning of the Internet.

Ms. Lal highlighted that the Internet is rarely seen as an imposition – it is not about turning us into virtual citizens, but is a vital part of public and other services and of accountability. She spoke about the success of the Right to Information Act in India where information availability has been translated into real-time processes with the help of civil society. Similarly in addition to State provisioning of the Internet, CS holds the responsibility for identifying convergence that pushes information and makes it meaningful on a day-to-day basis. She reaffirmed that the realization of rights-based frameworks involves diverse constituencies that are able to talk to each other across the lines of the North and South. Realization of the Internet for All requires a constant engagement with diversity.

Mr. Longwe brought the focus of the discussion specifically to the context of access to infrastructure. The Uganda Rural Infrastructure Access Fund provides matching grants to communities for provision of rural infrastructure, while in India recently, more liberal VoIP regulation has been set into place. Access is fundamental and crucial, but civil society advocacy should critique the measures being used to achieve access that can be hampered by loopholes and roadblocks.

Ms. Gurumurthy concluded this extremely rich discussion by bringing a few critical points to the attention of the audience. The totality of being a citizen is today increasingly linked to the Internet, and this speaks to the role of the Internet in realising democracy and citizenship. For many disenfranchised people, like the people her organization works with in the Mahiti Manthana project, the Internet represents a never-before opportunity to become part of the mainstream. It is in this context that discussions of dialogue between constituencies and outcomes need to be addressed. The questions to explore are what are the odds against disenfranchised groups being able to access to the Internet and how this relates to the issue of democratic governance, as also issues of equity and social justice. The new emerging realities need to contextualize and inform dialogues and discussions around Internet governance. In this context, while the current discussions on human rights vis-a-vis the Internet, like freedom of expression and privacy, are quite important, there are equally important issues of positive rights like the right to access, many dimensions of which have been explored in the rich discussions today.

Internet and Environment

WS 52: ICTs and an Environmentally Sustainable Internet

Organizers: *The Global Information Infrastructure Commission (GIIC); The World Information Technology and Services Alliance (WITSA); Keidanren*

Moderator: *Mr. Jeff Lande (Senior Vice President, Information Technology Association of America)*

Panelists: *Graham Vickery (Head, Information Economy Group, OECD); Robert Pepper (Vice President, Global Technology Policy, Cisco); Heather Creech (Director of Global Connectivity, International Institute for Sustainable Development); Joseph Alhadef (Vice President for Global Public Policy and Chief Privacy Officer, Oracle)*

The workshop featured a lively discussion on the challenges of connecting the next one billion users to the Internet and how this can be done in an environmentally sustainable way. Audience participation was diverse, ranging from questions focused on business-government cooperation, e-waste and developing countries, and SME's awareness of energy consumption and efficiency.

Why technology matters: The rapid implementation and uptake of new energy-efficient technologies can produce much greater energy savings than policy measures. The early implementation of low-carbon technologies will play a critical role, so we must identify those technologies as quickly as possible to accelerate their development and support their adoption.

What the ICT sector needs to do: We need a more systematic approach to monitoring and measuring the energy demand of our own products and services; improved environmental performance within our own supply chain by sharing best practice; and identify those technologies for tackling climate change.

The GIIC noted some of its findings that are linked to the workshop discussion:

- ICTs' contribution to monitoring, measuring and addressing climate change
- ICTs' role as an "enabler" for behavioral and economic changes in other industries which can reduce carbon demand
- ICT industry's efforts to reduce its own electrical power demand through innovation and cooperation
- The ICT sector will be called upon to help other sectors as they seek climate change
- The ICT sector will need to share and collaborate to find solutions that meet the needs of those rapidly growing economies in a manner that is respectful of resources and technology's contribution to the climate change

Heather Creech demonstrated that our global economic and social lifestyle already are well beyond the point of sustainability. She identified three challenges to the ICT sector:

- the direct ICT effects (reducing greenhouse gas emissions, consumption of energy and materials and generation of waste)
- the indirect ICT effects, developing products and services that enable other sectors to work towards sustainability
- the systemic ICT effects, enabling the long-term changes in economic and social organization that will be needed to solve the “ecological credit crunch” and get the world out of “ecological debt”

Heather Creech urged the ICT sector to review critical issues through a sustainable development lens, embrace a full lifecycle approach to ICTs, support open network architectures and global connectivity and recognize the importance of good governance processes for the management of the Internet.

Graham Vickery looked at various fields of application of wireless sensor networks for a significant impact on the environment (for example, smart buildings, logistics and transportation, environmental monitoring, security and surveillance, health care, animal tracking and precision agriculture and smart grids and energy control systems). There appears to be limited interaction between these areas and ICT, and he sought ICT experts to help shed light on the potential implications of these applications on the environment.

The OECD has studied 75 different green ICT initiatives from 40 different industry associations and 35 governments, measuring the direct impacts of ICTs. It also studied initiatives using ICT as an enabler, and the positive effects IT may have on the environment. The most common focus of these studies was on global warming and energy use. However, many other potentially important areas had not been closely examined – a more thorough study of all areas that have a potentially significant impact on the environment as well as on the economy.

Robert Pepper elaborated on projects which had a positive impact on the environment. A 40% reduction in power usage of networks can be obtained through smart save modes; offering huge incentives for businesses. Cisco is currently running several pilot projects using connectivity to improve efficiencies, including in transportation (Amsterdam), smart offices, travel assistants and road pricing systems (Seoul) and smart bus transportation (San Francisco). He advocated the development of a smart electrical grid, using ICT for efficient delivery and monitoring of electricity. Other areas include improved space utilization management; using space more efficiently saves energy, space and materials.

Joseph Alhadeff emphasized that the impact of ICT on the environment needs to be looked at holistically, including its broader transformation of the economy and impact on the ecosystem as a whole. ICT can play an important role in reducing the carbon footprint in many industry sectors, such as making coal burning plants burn

cleaner, et cetera. Regulators needed to be careful with green ICT objectives. Noble, while misguided regulations (for example, flat energy consumption taxes) could stifle innovation and have the opposite effect vis-a-vis energy reduction goals. The entire ecosystem must be considered, including the benefits that ICT brings to that ecosystem.

WS 53: Internet and Climate Change

Organizer: *International Telecommunication Union (ITU)*

Moderator: *Arthur Levin (ITU)*

Panelists: *Malcolm Johnson (ITU); Don MacLean (IISD); Mark Carvell (United Kingdom); Graham Vickery (OECD); Guarab Raj Upadhaya (Nepal Wireless)*

It is estimated that the ICT sector produces some 2-3% of total emissions of greenhouse gases (GHG) and this share will increase as ICTs and the Internet continue to grow. Although ICTs contribute to global warming, they can also help by significantly reducing the GHG emissions of other sectors.

The workshop focused on the impact of the Internet on climate change. It featured a number of prominent speakers and was well-attended.

The workshop began with a keynote speech by Malcolm Johnson, Director of the ITU Telecommunication Standardization Bureau (ITU-T). The Director highlighted the important role that ICTs can play in mitigating the effects of climate change and described the steps ITU is taking to address this problem. In particular, ITU has established a Focus Group, open to all, which is tasked to develop agreed global methodologies to measure the impact of ICTs on climate change. He described concrete examples, such as video and teleconferencing, by which ICTs can be used to reduce GHG emissions and noted the important role of the private sector in addressing this issue.

Don MacLean of the International Institute for Sustainable Development (IISD) spoke on the challenges of attaining a high-bandwidth, low-carbon future. He explained the direct, indirect and systemic effects of ICTs on climate change.

Mark Carvell from the United Kingdom outlined the firm commitment taken by the government to set clear targets for reductions of GHG emissions and the efforts being made to use ICTs to attain those goals in the ICT field.

Graham Vickery of the OECD discussed the ways in which ICTs can reduce emissions in other sectors and presented research on the level of actions being taken by the industry to reduce emissions through the full lifecycle of products (manufacture, use and disposal).

Guarab Raj Upadhaya of Nepal Wireless spoke on monitoring climate change in the Himalayas. His presentation demonstrated the concrete ways in which ICTs are being used to monitor the rate of glacier melt in the Himalayas due to climate change and the challenges of using ICTs in that environment.

Arthur Levin of the ITU discussed next-generation networks (NGN) and energy efficiency. He explained that the deployment of NGNs may lead to energy savings of as much as 40%.

The presentations were followed by a lively debate on the issue. It was recognized that the rapid growth and deployment of ICTs and the Internet must be done in an environmentally-friendly manner and that this issue should be given prominent focus in the IGF.

Dynamic Coalition on Internet and Climate Change

The Dynamic Coalition on Internet and Climate Change (DCICC) was launched at the second IGF in Rio in 2007. The DCICC held its first physical meeting on 4 December at the third IGF in Hyderabad, India. The meeting was facilitated by Arthur Levin of the International Telecommunication Union (ITU).

The founding members of the DCICC are: ITU (International Telecommunication Union), GeSI (Global e-Sustainability Initiative), MIC (Minister of Internal Affairs and Communications, Japan), BT (British Telecom), Deutsche Telekom and IISD (International Institute for Sustainable Development).

New members of the DCICC are: OECD (Organization for Economic Cooperation and Development), Daisy Consortium, CAST (China Association for Science and Technology), Nepal Wireless, Tama University Japan, CSDMS (Center for Science, Development and Media Studies), Wipro Technologies, CTO (Commonwealth Telecommunication Organization).

The meeting heard presentations from ITU, MIC, Canarie and GeSI on their respective activities and views on climate change. Earlier in the day, ITU had organized a workshop on Internet and Climate Change, which was attended by many DCICC members.

The following points were made in the discussion on climate change:

- The need to raise awareness among governments on the importance of ICTS in addressing CC, particularly the need to engage them in the context of the ongoing UN negotiations
- The IGF should devote more attention to the issue of CC
- The impact of climate change on developing countries, in particular adaptation strategies, is of critical importance
- The importance of raising consumer awareness of the impact of their ICT use on climate change
- The importance of lifecycle analysis in examining the relation between ICTs and climate change
- The need for better tools for consumers and the private sector to measure and

assess the impact of ICT use on CC and in particular ways in which ICTs can be used to reduce GHG emissions in other sectors

- The utility of different carbon offset mechanisms

Objectives and Main Activities

There was a general discussion of the mandate and activities of the DCICC on the basis of a draft Terms of Reference that had been circulated in advance. As a way forward, it was generally concluded that key activities would include:

- ITU will prepare a report of the meeting; each member of the Coalition will submit a paragraph on its main CC activities as part of the report
- Members will submit further ideas and suggestions on means to sensitize governments on the relation between ICTs and CC
- Members that have not done so will consider contributing to the ITU Focus Group on Climate Change, which is a body open to all
- ITU will prepare and circulate for agreement a draft statement to IGF on the need to give more prominence to the issue of CC in future proceedings
- The DCICC will meet physically at IGF meetings and will consider other meetings in conjunction with planned activities, but will work in the main in a virtual manner

Logistics

ITU will maintain the Web site for the Coalition. The website will include:

- Resource materials and reports furnished by members
- A calendar of major meetings on ICT and CC
- Reports of the Coalition
- Information on how to join the Coalition

ITU will establish an e-mail exploder for the Coalition as a means of contact and communication.

Future Perspectives

WS 50: Can Internet Governance Change Global Futures, or Will Global Futures Change Internet Governance?

Organizer: *International Institute for Sustainable Development*

Co-Organizers: *Association for Progressive Communications (APC); Industry Canada; and The Energy and Resources Institute (TERI)*

Moderator: Heather Creech (*Director of Global Connectivity, IISD*)

Breakout group facilitators: Willie Currie (*Policy Advisor, Association for Progressive Communications*); Don MacLean (*Senior Associate, International Institute for Sustainable Development*); Maja Andjelkovic (*Advisor, International Institute for Sustainable Development*); Tony Vetter (*Global Connectivity Project Officer, IISD*)

Expert commentators: Willie Currie (*Policy Advisor, Association for Progressive Communications*); Liesyl Franz (*VP, Info. Sec. Programs & Policy, Commercial Sector, Information Technology Association of America*); Shalini Kala (*ENRAP Program Coordinator, International Development Research Centre, New Delhi*); Jyrki Kasvi (*Vice Chair of the Committee for the Future of the Finnish Parliament*)

Heather Creech of IISD started off the event with the problem statement: will global futures affect the development and deployment of the Internet; will development and deployment of the Internet affect global futures? The workshop participants were then provided with an overview of scenarios, how they are used and examples of major global scenario processes (Shell, United Nations Environment Program, and the Global Scenario Group). The participants were randomly divided into four breakout groups. Each group was provided with a brief description of one of the four stories of what the Internet might look like in the future, as developed in a previous IISD workshop held in Ottawa, Canada.

Facilitators led the participants in each of the breakout groups to challenge the Ottawa workshop storylines by considering two questions:

- What impact do you think global crises could have on the management of the Internet?
- What will happen to your priority Internet concern in this future?

A volunteer from each of the groups reported back with a revised or enhanced story of what the Internet might look like. The four expert commentators were then asked to reflect on the four Internet futures by considering whether they had heard something from one of the stories that either changed their thinking, or reinforced where they thought the Internet should go.

The causality of interactions between the critical Internet uncertainties and the global scenarios was unsolved in this first attempt. In most cases it is plausible that there will be co-evolution between the outcome of critical Internet uncertainties and the resolution of other global challenges. However these integrated scenarios did provide fresh perspectives and insight on Internet futures. One of the most significant outcomes of the Hyderabad workshop was the recognition of the importance of addressing a range of Internet issues together rather than focusing on single challenges in isolation (IPv4/IPv6; net neutrality; security and so forth).

Further, the emergence of a strong global multistakeholder governance process endorsed by a global citizens' movement may greatly help to resolve the "process" aspects of Internet governance in a favourable way as described in the Internet Commons Scenario storyline. As well, one could see potential for the emergence of a policy handshake: actions in the realm of advancing sustainable development

have important implications for the Internet and decisions within the world of the Internet influence the prospects for sustainable development (“if you care about sustainable development, you should care about the future of the Internet, and vice versa”).

This is a first attempt at making these linkages. It is hoped that the four storylines of the future of the Internet and sustainability will provoke further thinking on necessary and possible decisions about critical Internet uncertainties that will advance the most desired global scenario.

We have established a Web site at <http://groups.iisd.org/Internetscenarios/> to continue discussion of this work. We look forward to comments.

WS 57: What Will the Web Be Like in Twenty Years' Time?

Organizers: *World Broadcasting Union (WBU); European Broadcasting Union (EBU); British Broadcasting Corporation (BBC); Japan Broadcasting Corporation (NHK); International Telecommunication Union (ITU)*

Chair: *Jonathan Charles (Presenter, BBC World)*

Panelists: *Malcolm Johnson (Director, ITU Telecom Standardization Bureau); Arthur Levin (Head of Strategy and Policy division – ITU/TSB); Yoshihiro Fujita (NHK Executive Research Engineer); Toshio Kuramata (NHK Programme Director); Robert Kahn (CNRI and Internet pioneer); David Wood (EBU Head of New Media)*

Arrangements for the governance of the Web and Internet need to take into account its potential evolution. This workshop at IGF 2008 endeavoured to offer a vision of the future of the Web, in content, public policy, market economics, and in the technical tools available.

Malcolm Johnson explained the work done and the role played by the ITU-T in standardization, and its plans. He also referred to sentiments expressed earlier by the ITU Secretary General, Dr. Touré, at the IGF. Dr Touré had stressed the need for the IGF to progress from a discussion forum to a body enabling or taking actions in public policy.

Robert Kahn explained his perception of the most critical elements of Web technology for today and their evolution. He argued that essentially it was not possible to predict with accuracy the shape of Internet and Web in 20 years' time, because there are too many variables involved. The main issue we need to solve will be to create a new architecture of the Internet able to identify single objects rather than files.

Yoshihiro Fujita explained issues associated with the convergence of media, and the use of future hybrid systems which combine broadcasting and Internet. Such hybrid technology may (according to some) represent the largest use of the Web in the future. One vision of Web 3.0 sees it as less a Web dominated by software intelligence and the “Internet of things,” and more as a Web being used as an alternative vehicle for distributing professionally made content.

Toshio Kuramata outlined the development of content for the Web, which has come to include significant community elements, and content creation by individuals. This tendency may be one of the keys to the future of the Web, because there is a generational change in habits towards Internet and new technology in general. He categorized the new generation as “digital natives” – a term that now is used in Japan to define the new behavior pattern.

David Wood argued that it is possible to see major trends and tendencies which can predict to some extent the future of the Web. This is because both technology and content are a response to market economics, and market economics follow known patterns, such as cyclical downturns, company concentration and clustering.

The well-attended workshop discussed this complex situation. There are a large number of interrelated variables affecting the future of the Internet and the Web, and thus the system is at least partly chaotic in a mathematical sense, and thus unpredictable in its future. It will be susceptible to events and individuals which have not yet happened (“the signature of chaos”), but equally may be susceptible to macro trends and tendencies which can, possibly, be predicted.

There are different views on the major driving forces shaping these trends, and whether they are technology evolution standing apart from market economics, or market economics as the major overall determinant of events and technology, influenced in its direction by public policy.

The results of the workshop were also used by Jonathan Charles in the debate on emerging issues that he moderated as the final plenary session of the IGF.

WS 86: Youth and Internet Governance: Challenges for the Future

Moderator: Maja Andelkovic (IISD)

Panelists: Agnieszka Wrzesien (Nobody's Children Foundation, Poland); Marilia Maciel, (Remote Participation Project, Brazil); Nevine Tewfik (Ministry of Communication and Technology, Egypt); Eddan Katz (Electronic Frontier Foundation, United States); Wolfgang Kleinwächter (University of Aarhus, Denmark); Kristina Irion (Central European University, Hungary); Ravi Parasrampurua (Project LifeUnits, India)

(Iffat Rose Gill and Andre Jacques Dodin participated remotely in the event.)

Ms. Andelkovic introduced the purpose the holding a session for youth, as there was a dire need to highlight the great work that is being carried out by the youth leaders from around the globe and it was a massive step to bring in new members with meaningful inputs to the IGF discussions.

Marilia Maciel, the young coordinator from Brazil, managed to raise questions from the audience after her session on the remote participation project. She was included in the panel after her work was assessed by the Youth and IG team and this project was believed to have a great impact on the lives of young people who due to the lack of funds would not be able to make it to the IGF but still had lots of inputs to add to the ongoing discussions. The discussion led to exploring the limited

number of hubs and the reasons behind it. Her presentation had the following main points:

- Numerous people cannot attend forums like the IGF, due to different reasons, mainly young people and groups that lack the resources and financial support, and this barrier of being physically present restricts them from contributing to ongoing debates.
- The Remote Participation Working Group raised and worked on the common concern to propose a mechanism that could enhance remote participation, building a bridge among remote participants and the IGF Hyderabad
- After studying different models and analyzing different platforms for interaction, partnerships were developed with regional organizations and communities with the aim to create local IGF hubs
- The RPP had successfully created hubs in Buenos Aires, São Paulo, Pune, Lahore, Belgrade, Barcelona and Madrid. The main aim is to reinforce multistakeholderism by empowering individuals, especially young people, who will bear the impact of the decisions made today

Agnieszka Wrzesien, young leader from Poland, gave a very insightful presentation on child online safety and she focused on the irresponsible use of information and communication technology tools like mobiles and how the content generated by them in social networking spaces is shaping the lives of children and teens in Poland. Her work focused on the education and awareness of the young people about the responsible use of emerging and convergent technologies and how they can use it to maximize their learning and social interaction without infringing on the rights of others.

- Cyber-bullying is an recurring escalating trend, and is done via e-mails, chat rooms, instant messaging and mobile phones and, unlike traditional bullying, it can go on 24/7.
- Some facts and figures: Every second young Internet user (52%) has had some contact with verbal abuse online or via mobile phones, 57% of young people report to have been at least once photographed or recorded against their will and 14% report their peers have published online untrue or humiliating material about them.
- Young people who are reported to be victims of cyber-bullying experience stress, lower self-esteem, frustration and depression and this often leads to emotional and psychological implications including suicide attempts.
- The Stop Cyber-bullying Campaign aims to teach upper primary classes in Poland about the forms of cyber-bullying, how to avoid or minimize the risks involved and where to seek help.

Nevine Tewfik spoke about the Cyberpeace Initiative, a project of the Egyptian Ministry of Communication and Technology, which works for the capacity building of

youth leaders in Internet-related issues and gives them a platform to air their voices and views. It is an initiative to give them the freedom of expression to speak about peace in the region. Their capacity building model is based on both online and in-person training sessions that deal with issues like Internet safety for young people and e-content on peace and development, thus fostering their empowerment in the region. Some highlights from her presentation are as follows:

- Internet Safety for Young People: This track deals with the risks associated with the use of the Internet among young people. It aims at establishing a youth Internet safety focus group to spread awareness about Internet safety issues among their peers.
- The work methodology includes capacity building through diverse and continuous training and workshops, motivating by devising the Incentives plan and exploring field work, and preserving a lively communication system between members.
- The capacity building program includes tutorials on ICT social networking tools to enhance dialogue, understanding and tolerance, as well as safety tutorials. This is done through mobilizing, self-governance and division of labor.
- The Cyber-peace Camps are annual or semi-annual gatherings of young people with a passion for ICT in peace and development. The camps are opportunities to bring together young people from different regions in an intensive training and exchange forum where key issues related to the developmental role of ICT are discussed. The first youth camp took place during the ITU Youth Forum of Telecom Africa 2008 and focused on the needs and aspirations of the African continent in the digital age.

Professor Kleinwächter emphasized the need to educate the new generation about the core issues pertaining to the Internet governance and the impact of the policies made today on the leaders of the present and future. He shared a capacity building model, namely European Summer School on IG, which aims to train the potential leaders in the basics of IG and hopes to bring more and more people in the IG discussions through capacity building.

- Putting the digital divide into a historical perspective, there is a great optimism for digital opportunities for the next generation. There were 10 million users in 1992 which, during the start-up phase of the WSIS process in 2002, had reached 500 million users worldwide. The number increased to one billion just before the Tunis Summit in 2005 and at present, end of 2008, we have 1.5 billion users. The number is still less as compared to the population but with new technological options like low-cost wireless Internet access, the WSIS goal to bring half of mankind online by 2015 can be achieved. And I expect that in 2020 we will have more than five billion Internet users on the globe.
- For the young generation of today, the Internet in future will be a natural part of their lives, it will be like air. All your communication, learning, work, research, shopping, entertainment will be more or less supported by the Internet.

- Access to the Internet is just the beginning. The real challenge comes with the use of the Internet, and this is where we move towards another digital divide! There is a real threat that we will see huge division in the Internet usage where it might be mostly limited to entertainment by a proportion of population, leaving the rest of the potential of the Internet for the development of their own creativity unexplored. On the other hand, there would be users who use it for innovation, production and creative development. To stimulate creativity and use the Internet for personal self-determination and self-development and to become a free and enabled citizen of the globe, will be the real challenge in the years ahead. And this calls for more investment into education and training both in the North and the South.
- The Internet of tomorrow is global. Cyberspace does not know the frontiers of time and space. While we are all living in our local communities with our own local cultural and historical background, everybody who is online will become a global citizen. The young generation has to be aware that they live in a global community on one planet and the only way to manage this global complexity is communication, collaboration, mutual understanding, respect and tolerance. What we need is a need global ethics for the cyberspace which is rooted in the human achievements of our past and which is enshrined, in particular, in the Universal Declaration of Human Rights and the Charter of the United Nations.

Eddan Katz shared with the audience about the innovative “digital native project” and how it is helping to explore different possibilities for collaborative works. Highlights from his presentations are as follows:

- Digital natives grow up in the information society and work through collaborative development where diversity and multiculturalism play a pivotal role in this era of globalization.
- Freedom in the age of terrorism is a challenge, where privacy and openness are fundamental rights as compared to security which is assumed to be close.
- Access to knowledge should be promoted along with innovation and creativity, and when we are speaking of development and freedom, there has to be a balance between essential needs and social responsibility.
- “Openness and responsibility” has a lot of aspects to it, namely surveillance, transparency, trust, difference of opinion, cooperation, and has a bottom-up approach.

Iffat Rose Gill could not be present at the workshop, but her presentation highlighted some of the main objectives that were to be discussed in the workshop. The main scope included highlighting of projects/interventions of youth leaders working in the Internet governance issues and a dialogue with different stakeholders on ways to identify innovative and creative work and reach out to potential youth leaders. These emerging leaders, mostly from developing countries, often lack the resources, sometimes fail to implement these youth-led and youth-focused initiatives that can be replicable and scalable.

- The young people are usually left out from the participation in mainstream discussions at the policy-making level in Internet and related issues due to lack of communication, financial support and sometimes capacity and training. The lack of framework, institutional support and recognition of the true potential of these young leaders also often lead to loss of momentous input from this critical grassroots entity.
- There is a dire need to initiate discussions and debates among youth networks and organizations interested in IG and policy debate so that there is an increased awareness followed by well-informed contributions from their side to the current debates, since they are the major contributors to the user-generated content, and put incredible amount of information on the Internet. We need to explore platforms and forums at grassroots levels which can help us reach maximum youth groups interested in these debates.

Professor Christina Irion from Central European University shared her thoughts about the privacy concerns faced by young people at social networking sites and how it is shaping their lives.

Ravi Parasrampurua from India explained how young people developed software to provide e-health solutions to populations in their country and how they are shaping the lives of youngsters that they manage to reach with the access limitations in the rural areas.

Suggestions and Recommendations

We got a tremendous amount of feedback from our members and interested people who gave a lot of inputs for future activities both during and after the workshop.

- Formation of a Dynamic Coalition for Youth Involvement
- Hosting of an e-consultation on Internet-related issues affecting youth

Wrapping Up

Closing Ceremony, 6 December 2008

Speakers

Mr. Nitin Desai, Special Advisor to the Secretary-General for Internet Governance and Chairman of the Multistakeholder Advisory Group (MAG)

Mr. Art Reilly, Senior Director, Cisco Systems, ICC/BASIS

Ms. Anita Gurumurthy, Executive Director, IT for Change

Mr. German Valdez, Communications Area Manager at Asia Pacific Network Information Center (APNIC)

H. E. Mr. Mohamed Higazy, Ambassador of Egypt to India

Mr. Jainder Singh, Secretary, Department of Information Technology, Ministry for Communications and Information Technology, Government of India

Extracts from the Transcript of Proceedings

JAINDER SINGH:

I would now call upon Nitin Desai, Special Advisor to the Secretary-General for Internet Governance and Chairman of the Multistakeholder Advisory Group, to kindly speak to us.

NITIN DESAI:

Mr. Chairman, I have already had my say on substantive issues. I now have the very pleasant duty of thanking a lot of people. First of all, I have to thank the government of India and the partners to government, Andhra Pradesh, for being perfect hosts. You are perfect hosts because you have only a single agenda: how to look after us, how to make us comfortable, how to run this meeting efficiently and how to run this meeting effectively. And I must say on behalf of all the participants, I would like to convey my deepest thanks to the government of India, the government of Andhra Pradesh, the police force of Andhra Pradesh, the staff of this convention center and the hotel who have really done us proud and looked after us very well.

I would also like to thank all the people from the UN who have been involved in it. Yanik and his team of security looked after us in circumstances which were rather difficult and made us feel very safe and secure along with, of course, the excellent support we got from the police force of Hyderabad, Cyberbad to be more precise. Also the interpreters. The others, Omar and Daniel who have been running this conference, the two scribes who have even made it to the newspapers here. I must tell you about the scribes. Somebody told me, "You people have wonderful voice-to-text software." I said, "It's not voice-to-text software." There are two people who are

actually typing it out there, you see. So I really want to thank them for what is an extraordinary job.

Above all, I want to thank Markus Kummer who really works like a Trojan throughout the year. He and Chengetai and the few interns that they manage to get work really hard in order to allow us to do what we do. The members of the Multistakeholder Advisory Group who voluntarily offer the labor throughout the year, not just during the meeting, in organizing this. And I truly appreciate their dedication and commitment. The various Chairs who came to this meeting, the moderators, the panelists who find time to be here. Most of all, I want to thank all of you participants. The fact that you chose to come here despite the events in Mumbai is itself a testimony to your willingness to show solidarity with the people here. And equally important, your judgment that participating in this meeting is of some importance. Nobody comes to the IGF because they are required to come. There is no compulsion. Every single person who has come to this meeting has come out of choice. And I want to say that there hasn't been a serious erosion of numbers. We have had nearly 1,300 registrations, people participating. We had a few erosion from people of some standing and eminence, ministers, et cetera, who felt a little nervous. But, by and large, the numbers have not been seriously eroded which is itself a testimony to your commitment, and I thank you for this. These are just a few words I wanted to say by way of thanks to the very people who are here, to our organizers, to our host and to all of the people who make the IGF process what it is.

JAINDER SINGH:

I would now call upon Mr. Art Reilly, Senior Director, Cisco Systems, representing ICC/BASIS.

ART REILLY:

I am happy to address you today on behalf of the International Chamber of Commerce initiative BASIS, Business Action to Support the Information Society. Following WSIS, ICC created this initiative to raise awareness of what business wants and needs to continue our contribution to the development of the Information Society. BASIS comprises businesses and organizations from over 120 countries from a broad range of sizes, sectors and geographies.

I would like to thank the our Indian hosts and applaud the Indian government for proceeding with the IGF despite recent events in Mumbai. This year's IGF has been an outstanding success. For many of us, this has been our third IGF. I was on the first panel at IGF in Athens where we discussed openness. I recall the tension and uncertainties that many of us felt then. The discussions were intense and at times accusatory. We have come a long way. As we conclude our time here together, I would like to take a moment to reflect upon why it is that so many of us have traveled from near and far to meet in Hyderabad.

The IGF is unique. We come here as leaders in our communities who want to voice what is important to us. In the process, we get a deeper understanding of what is

important to others. The organizational format of the plenary sessions, workshops, dynamic coalitions has been very carefully planned. It allows candid exchanges among all the stakeholders on an unqualified equal footing. In his message to us at last year's IGF in Rio, UN Secretary-General Ban Ki-moon said that, "This forum is modest in its means but not in its aspirations. It may have no power to make decisions, but it can inform and inspire those that are in a position to make them." The IGF is not a series of political statements and proceedings; rather, each participant is an equally empowered contributor. Just consider for a moment the diversity of views that you have heard over the last four days.

What are we accomplishing at the IGF? Over three years, the IGF has increasingly proven its worth. Since we first came together, discussions have matured, relationships have been formed and strengthened. We have seen an increased focus on the issues and a significant reduction in the rhetoric. As we make our way home, this week's discussions will remain with us. We will keep in our minds the experiences and best practices shared as we take them home to our respective communities. We will continue to build upon the trust and relationships fostered here so that when we gather again next year in Egypt, our discussions will be even more candid.

Concretely, we have been able to come together to elevate such issues as affordable access, the creation of a multilingual Internet and IDNs, free flow of information, the balance of security, privacy and openness, child protection, and critical Internet resources, to name but a few. Our exchanges are valuable in and of themselves. Colleagues new to the IGF have expressed surprise to me at the number of considerations identified in our discussions. And we build on this each year. We come to the IGF to share ideas and experiences, and we leave with insights and new perspectives to apply back home. These benefits may not be easy to measure, but there is resonance.

On some of these issues the IGF gives us an opportunity to monitor progress. IDNs, for example. The IGF improves our understanding of the role of IDNs and the importance of making them a reality. By focusing on IDNs, the IGF has also served to advance the dialogue in other forums and increased interest in its success. The experiences in the next year from the initial implementations will undoubtedly be a source of great interest at the IGF in Egypt.

Beyond the main session exchanges, constructive dialogues and practical skills development sessions are taking place in the workshops. At the BASIS/government of Finland workshop on digital convergence, we discussed practical examples of how innovation and entrepreneurship are serving small businesses in emerging markets. Some innovative technologies and business models may seem to introduce challenges. Nonetheless, innovation is key. Participants of the workshop used examples to illustrate how innovation could help extend the reach of the Internet and its benefits. At the IGF we are building knowledge and forging the relationships necessary to move us closer to a more inclusive and people-centric Information Society.

What is next? To make the most of the IGF, we must continue to take the knowledge gained and build on the relationships formed to make an impact on our regional and local activities. We have already seen progress in the last year with the introduction of national and regional multistakeholder IGF-related events. Business believes these initiatives should spread. We hope to see more emerge in 2009 that will further enrich the global IGF discussions in Egypt. As the IGF has matured, we have seen lines soften. Those with seemingly incompatible views have found common ground through greater understanding. This approach ensures movement on substantive issues and is progress. Regional IGFs are a way to build on this between now and Egypt.

Business sees no benefit to the stalemates of entrenched positions and wordsmithing on very narrow issues that would occur if the IGF were focused on time-consuming negotiations of a text. That would greatly undermine the many benefits we have identified. Over the next year, business will connect another 200 million people or more to the Internet. Even more will get mobile service for the first time. All stakeholders must continue to work together to ensure that not only the connected, but those not connected, benefit from the Information Society. This is the path to realizing an Internet for All.

Business looks forward to sharing our experiences and lessons learned with you in Egypt and to hearing about your efforts and issues as well. My special thanks to Nitin Desai, Markus Kummer and his IGF Secretariat team, and the members of the Multistakeholder Advisory Group who have made the Hyderabad IGF a success.

JAINDER SINGH:

I now call upon Ms. Anita Gurumurthy, Executive Director, IT for Change.

ANITA GURUMURTHY:

I am honored to be part of the closing ceremony of the IGF, especially because this is my home country. The IGF is a unique institution attempting to measure up to the realities of a transnational political community. As a UN forum, it allows people excluded from other spaces and arenas where Internet policies are being shaped to participate equally in the dialogues implicating their own lives.

Ladies and gentlemen, I wish to pull your attention away from the IGF for a moment to reflect upon something else: the global financial meltdown. As Jeffrey Sachs said recently, poorest countries and people already struggling to cope with the food crisis would highly likely also feel the impact of the global credit crunch through diminishing global aid. This sobering reality allows us to think of how the economic ideologies and technical logic underpinning global social systems are not phenomena out there. They are palpable, real experiences of countries, communities and individuals.

So how can this historic moment inform us at the IGF? I recall from one of the open dialogue sessions a reference to India as the land of Mahatma Gandhi. I think Gandhian thought provides a very useful point of departure to take stock of the role

and relevance of the IGF, and I quote Gandhi: "Before you do anything, stop and recall the face of the poorest, most helpless, destitute person you have seen and ask yourself, 'Is what I am about to do going to help him?'" I think we at the IGF have a responsibility to ask, and I take the liberty to modify Gandhi in a spirit that he would have completely appreciated, "How is the IGF going to help the poorest, most helpless, destitute woman?"

The Internet as we know it is not just a connector bringing everybody together. It is also the paradigm that has shifted points of governance farthest from the immediate realities of people. We have seen this paradox come alive in the discussions of the past four days, in the debates on cyber-security, access to knowledge, and freedom of expression. Undeniably, we are a global community, and yet, we do not have the arrangements that are adequate and accountable to the poorest woman. So, where do we go from here, the midpoint in the IGF? If the IGF is, in fact, about the Internet and development, then it also follows that, as in all areas of development, a rights and citizenship approach be used to discuss policies for the Internet as well.

Civil society actors have felt that one of the steps forward during this IGF has been a concerted effort towards getting a grasp of such an approach. A starting point in this search for a rights-based approach to Internet governance would be to jettison patronage. Poor women do not need largesse. They want rights. They also don't want experts thinking on their behalf. After all, technical expertise has not only failed to bail them out of hunger, but as the recent financial meltdown shows, it is likely to also take away the little that would have allowed them to live. This is not empty rhetoric. As Mymoena Sharif, manager of e-governance from Cape Town says simply and powerfully, "If the city wants to succeed in offering people Internet access, it must be offered free." Citizens, especially disadvantaged citizens, are not going to spend 10 Rand for 30 minutes at an Internet cafe when that money is needed to put bread on the table. At this midpoint in its career, what the IGF will mean to the poorest woman and her rights will be the singular litmus test for its success.

JAINDER SINGH:

I now call upon Mr. German Valdez, Communications Area Manager at the Asia-Pacific Network Information Center, to kindly speak to us.

GERMAN VALDEZ:

First I would like to join with my predecessor to thank the government for the successful meeting they organized, for your hospitality. I think we need to thank them. And I am allowed to say also to the Ambassador Higazy, you are receiving very high standards for the next meeting.

My contribution this session is based on my personal experiences within the technical coordination organizations in both DNS and IP-related activities in the Latin American and Asia-Pacific context. This third meeting of the IGF shows continuing maturity as the process develops. In Athens, three years ago, many

people were not ready to address some of the controversial issues that we are talking about here in Hyderabad, for example, enhanced cooperation, critical Internet resources, cyber-security and cyber-crime. This shows that the IGF is maturing as an effective forum. It is also evolving in a way that would be unthinkable in a more formal institution.

The change in format at this IGF to have open dialogue and debates in the afternoons is an innovation I think has worked. And I like this new model, this new style of the IGF has developed in this meeting. After all, the technical coordination organizations like ICANN, ISOC and the RIRs have followed this form of open debates for many years and they have proved the success of this model.

The IGF is also growing in very important ways. The emergence of national and regional IGF events during this year is really proving to be a robust development. We have examples of IGF workshops in Africa, Latin America, Europe and Asia. In the particular case of APNIC, we recognize the big value of bringing IGF topic to our own meetings. We organized this year two workshops in conjunction with ISOC, one in Taiwan and the last in New Zealand, focused on the topic of challenges facing Internet operators in developing countries. These events have allowed people to understand much better what the IGF is about, share experiences, talk about what needs to be done and how, and then to bring those experiences to Hyderabad. It means the participants are coming prepared to meet with colleagues, to build networks, and to decide on things they want to do when they take back to home. The development of this regional knowledge has helped to have more productive sessions this week.

In this sense, we believe that the critical role of the IGF, it is in promoting dialogue and thereby overcoming misunderstandings. For example, this week we have heard concerns about IPv4 address supply and fears and constraints on Internet growth in the near future. I want to mention that with around 40 /8s in IANA pool, there is still scope for huge Internet growth in the next three years that unused IPv4 addresses will still be available. There is not yet an imposed shortage or rationing of IPv4 address space. And if IPv6 deployment advances rapidly from now on, maybe there will not have to be.

In the case of highly technical matters, line IP addressing, DNS, root servers, the IGF has promoted understanding of those issues and promoted interaction of technical and public policy issues. We certainly don't see these matters as isolated topics or as the exclusive province of the technical community. On the contrary, we do see the need to explore the wider implications of technical activities and decisions and we work with all the stakeholders to explore and address the impacts these activities can have.

We firmly believe that the open, bottom-up, self-regulatory and multistakeholder processes that we use are the best way to keep the Internet growing and stable. Today, the pace of change is increasing, both because of the technical challenges facing us and also because of the increasing interest in the Internet. A good example of the effectiveness of this multistakeholder model used by the technical

community is the recent development of a global policy on IPv4. This global policy addresses the very difficult and complex question of how to distribute the last large blocks of IPv4 space across the world. The debates on the policy moved from region to region and while the diversity of needs on the Internet realities differed considerably from region to region, the proposal was approved in all the five RIR communities. The policy is now in final stage, just waiting to be sent for ICANN endorsement.

We have gone through a long process since the first meeting under the WSIS umbrella. Conditions have changed and there is much more willingness from the stakeholders to share experiences, ongoing work, and engage in work. We as the technical community welcome the opportunities for the multistakeholder approach of this and future forums. We commit to bring our experience in technical issues to all the stakeholders now and in the future. The technical community has in the past listened actively to many stakeholder groups, has recognized the importance of issues such as cultural diversity and as a consequence, we have developed new technologies, such as Internationalized Domain Names. And as we go forward, we will continue to embrace the concept of enhanced cooperation as it has been implemented by IGF. However, and in closing, we also assume that and insist that enhanced cooperation must be a living process and that will respond to the needs of the stakeholders and continue to evolve in the future.

JAINDER SINGH:

I now call upon His Excellency, Mohamed Higazy, ambassador of Egypt.

MOHAMED HIGAZY:

It is a pleasure to be here with you today at the closing ceremony of the third Internet Governance Forum in Hyderabad on behalf of His Excellency, Dr. Tarek Kamel, Minister of Communications and Information Technology of Egypt, who, unfortunately, was unable to join your distinguished gathering.

Allow me at the outset on behalf of the government and people of Egypt to convey our deep condolences to the families of the victims of the Mumbai criminal attacks and express our solidarity with India and its great people. I would like also to extend words of gratitude to our generous hosts for their warm hospitality and congratulate them on the excellent organization of this event. Our special words of recognition go to Chairman Nitin Desai, Mr. Markus Kummer and all members of the IGF Multistakeholder Advisory Group for their enormous effort in arranging this dynamic, stimulating and interactive meeting.

With the Internet being always on the top priority of the Egyptian government's agenda, Egypt has been actively participating in the IGF process since its initiation, believing in its potential of the Internet for socioeconomic development as well as the opportunities it brings to individual and the society at large. Egypt has actively participated in the two phases of the WSIS and was an early member of the Working Group on Internet Governance, WGIG, which initiated the idea of the

formation of the IGF. Before the first IGF meeting in Athens, we took the lead to coordinate an African stance through gathering all African partners in discussing issues of interest and developed coordinated positions. During each of the IGF phases, Athens, Rio and now India, Egypt was keen to take part in the different functions of the three forums, partnering with various stakeholders.

Today in Hyderabad, we are witnessing another phase in the progress of the IGF, with the process getting into maturity stage. It gives me a great feeling of satisfaction to follow the deliberations taking place between partners who all gather with one aim in mind, to shape the cyber-world for the benefit of the whole community. Eventually, the cyber-world is not anymore another parallel world to our real one, as everything now that happens online maps itself in our actual day-to-day life, with its positive or negative impact on our lives. Thanks to IGF, we are all proud to be more capable of understanding the problems that lie ahead, of identifying the challenges and opportunities we have had and of being more efficient in probing into the Internet issues.

The theme of our meeting here in Hyderabad, Internet for All, mirrors our mature vision and the strong conviction of all stakeholders taking part in this process that the Internet should be for all. The theme chosen also underscores our common understanding that this cannot be achieved unless we address the diverse needs of all users, whether from developed or developing nations, whether English or non-English speaking, whether already online or not yet connected, whether adults or youngsters and so on.

The deliberations over the past four days have exhaustively discussed so many aspects of the overall theme – Internet for All – that will, with no doubt, guide the work during the coming year in preparation for the next IGF. Heading towards IGF Egypt, we need to build upon our cumulative experience and to learn from the lessons of all past three phases. This will no doubt require extensive work and increased dedication during the coming intersessional period. Step by step, we are together witnessing the culmination of the IGF process, which will add another brick in the land of pyramids over the banks of the Nile. This continuity will be always before our eyes, while shaping the world of today, not only continuity of the process, but also the coherence and the multistakeholder approach which we should always abide by.

With the start of the IGF evaluation process, the fourth meeting of the IGF in Egypt is foreseen as an important milestone. Although it is never easy to define success, I believe the success of this process should not be measured only against its mandate. We should carefully examine the impact IGF has produced in the broad area of Internet public policy-making. We should appreciate the broader level of inclusion this process has created through greater and diversified participation, both across the different regions as well as across the various stakeholder groups.

For the IGF to continue developing and bearing fruits, we should stress that it remains as a prolific space of exchanging ideas and deepening dialogue among the various stakeholders and should continue to play an important role in defining and

shaping decisions made by other relevant bodies. While shaping our views on how the IGF should evolve, we need to ensure that the Internet will continue to be a tool for development that positively affects and assists people in all aspects of life. We need to enable society to rely on the innovation offered by this powerful medium to develop their potentials. The IGF Egypt meeting will continue to stress that both developing and developed countries are equally sharing great responsibilities through their collaborative participation to this historic IGF process. It will continue to explore and reach best means for getting the citizens of our societies connected and better utilize the Internet and innovate within its space for all our communities to further develop and prosper.

Finally, let me announce to you that next year, IGF meeting is going to take place in the world-famous resort of Sharm El Sheikh, the city of peace, from the 14th to the 17th of November 2009. We look forward to welcoming you all next year in Egypt to add another brick to the IGF pyramid. Thank you once again for a very successful and vibrant meeting. I am waiting to see you all next year in Egypt.

JAINDER SINGH:

Thank you, Your Excellency. Excellencies, participants, I speak on behalf of the Chairman of this Internet Governance Forum. Mr. A. Raja, Minister for Communications and Information Technology could not, for many reasons, attend this closing session. It has been India's honor to host the third Internet Governance Forum in Hyderabad.

From an esoteric communication network connecting a few researchers in the early 1990s, the Internet has today evolved into the very veritable bloodstream of modern daily life. It encompasses within its fold information, communication and transactions in economic, scientific research, development, governance and other fields. Almost all areas of human endeavor have, to a greater or lesser extent, been impacted by the Internet. Amazingly, despite this, its current impact is still a fraction of what is possible. Progress so far has stirred the imagination of people across the world, battling problems of hunger, poverty, disease, lack of education and so on, because the Internet has suddenly created avenues for pursuing developmental and economic goals far more efficiently and equitably than was ever possible in the history of mankind. Sadly, the same potential has attracted the attention of many of the undesirable elements in societies around the world, making the Internet both a vehicle and a target of criminal minds.

Today, therefore, we stand at a threshold where both limitless opportunities and daunting threats lie ahead. The challenge is to grab the opportunities and exploit them to the fullest, while containing, if not eliminating, the threats. It is clear that achieving these objectives would be possible only by concerted and collaborative action by governments, businesses, civil society organizations and academia. The IGF as a forum holds great promise as a platform to forge precisely such a grand coalition for universal good.

During the last four days, we have had very fruitful discussions, and with your permission, I would present some closing remarks.

As you are aware, the main focus of this IGF was Internet for All. The meeting has addressed five main themes: reaching the next billion, promoting cyber-security and trust, managing critical Internet resources, taking stock and the way forward, and emerging issues, the Internet of tomorrow.

As you are well aware, the Internet Governance Forum has evolved from the Tunis World Summit on the Information Society. In this IGF, we were privileged to have extensive participation and involvement of over 1,200 participants from 94 countries, representing government, private sector, civil society, academia, Internet community and media. This reflects and reiterates the multistakeholder and democratic nature of the forum. During the deliberations and discussions in this IGF, participants exchanged their various experiences on the developmental and substantive issues of public policy and governance matters. This has provided an excellent platform to put across the views and suggestions. This has helped in moving forward on the issues.

Thus, we can see that the IGF is a continuing process where the issues pertaining to the Internet and affecting its performance and use are deliberated upon. Our discussions have covered a very broad range of issues related to the growth and governance of the Internet. A host of challenges and opportunities were identified. It was recognized that there is a need for collaboration between governments, private industry and civil society.

In this IGF, we have not only discussed the problems and the opportunities which had to be addressed, but we have also grappled with the question of the right balance between the role of the markets, the state and civil society. What is the role of the state? What is the role of the private sector? What is the role of civil society? The fundamental approach in this IGF has been, how do we collaborate and ensure complementarity instead of working at cross-purposes?

The IGF has held extensive discussions on the main theme of Internet for All. Nothing could be more important than the ways by which access can be increased to those not yet linked to the Internet. The Internet is not just about business, but it is also about inclusiveness and empowerment. And that depends upon access. There is a need to address the access gap in a multidimensional manner. This IGF has discussed all aspects of access, from connectivity to affordability, from physical access to real access and various related issues. Access was discussed with respect to computing facilities and connectivity. It was also recognized that Internet-intermediated services are also required to be made available.

Access and multilingualism are intertwined. We cannot really talk about one without the other. The challenge of achieving universal access can be realized only if the Internet is made available to people of all languages. More vigorous strategies need to be put in place to make sure that the required content is produced. The importance of localization and availability of tools was also discussed. A key point

that was recognized was that, increasingly, online communication is growing in mediums other than written forms.

During this IGF, there was a focus on inclusion of persons with disabilities, so that the required measures can be put into place for making the Internet accessible to them.

Technology experts and also common users are fully aware of the serious and increasing threats to the Internet and the prevalence of cyber-crimes. The growth of the Internet has created further opportunities for cyber-hackers and criminals. Viruses, spyware, phishing and botnet are hurdles for the future growth of the Internet. Cyber-security is becoming more and more complex with every advancement of technology. It has perhaps become the most serious challenge for all concerned. There are a large number of actors involved in the prevention and remediation of cyber-attacks who need to collaborate and cooperate. To deal with cyber-security-related challenges, there has to be shared responsibility among all stakeholders. Global alliances and mechanisms for exchange of information have to be established for ensuring safety, security and the stability of the Internet.

In our deliberations at this IGF it was felt that the relationship of trust was needed to facilitate discharge of such shared responsibility. Cyber-security is the key to users' trust in e-business, e-governance and other online applications. The openness and trust of users on the Internet needs to be maintained and encouraged. The fight against cyber-crimes, therefore, should be given utmost priority in building not only confidence but also user-centric Information Society. There were also discussions how each one of the stakeholders has a role to take appropriate action in terms of privacy and openness.

It is well recognized that the IPv4 address space is limited. The day that no more 32-bit IP network addresses are left will arrive soon. The new IPv6 architecture is designed to solve this address space problem in an effective way. It also supports more features such as secure routing, effective security, as well as auto-configuration, thereby offering complete mobility. The need for deployment of IPv6 protocol is real and urgent. However, because of the huge size and the diverse coverage of the Internet, it may not be practical to expect rapid and complete transition from IPv4 to IPv6. Coexistence of both IPv4 and IPv6 must be managed in a practical and simple way for enabling a speedy migration.

The management of the root servers, domain name systems, Internet protocol and other interconnection points requires the cooperation of all stakeholders. It would seem that there was no clear shared vision of what enhanced cooperation means and how this has to be worked out. There is, therefore, a need to have a continuing dialogue regarding the management of critical Internet resources in order to ensure continuity of a secure and stable Internet infrastructure which has now become essential not only for the economies and security of the developed world but also to enable merging and developing economies to meet their development goals more effectively.

In this context, we see that the dialogue itself serves a very useful purpose, and it brings together diverse stakeholders who do not ordinarily meet at a single forum. We also observed that this dialogue has shown the potential to bring greater clarity on the structures that would enable and facilitate the kind of collaboration needed. The global Internet has thrown up immense opportunities for social benefit as well as extreme challenges in harnessing these opportunities. Governance of such an entity poses challenges for technology, content and behavior management, coupled with an enhanced understanding of security in all its dimensions and the various aspects of privacy.

On behalf of the people and the government of India, I express gratitude to all of you for coming to Hyderabad and for participating in the third Internet Governance Forum. By being here in spite of the terrorist acts in Mumbai, you have demonstrated your solidarity with the people of India in facing this menace. I would like to thank you and convey that your presence here means a lot to us.

I would also like to thank Mr. Jomo, Assistant Secretary-General of Economic and Social Affairs of the United Nations, for his personal contribution to IGF 2008. I am sure you will join me in thanking Mr. Nitin Desai, Mr. Markus Kummer and the staff of the United Nations who not only prepared so carefully for the IGF but also ensured the smooth and successful conduct of this IGF in Hyderabad. I would also like to recognize the unstated support given by the Internet community in India.

The meeting is now concluded.

Postscript

Extract from the Transcript of the Open Consultations Geneva, 23 February 2009

CHAIR DESAI:

Our major purpose, as we decided last time, was first to take stock of the Hyderabad meeting, what worked, what did not work, what are the lessons we draw from that for organizational purposes, what are the lessons we draw for substantive purposes.

Second, we are very happy that we have many people from our host for this year, Egypt, and in the afternoon we will begin with a presentation by our host country on what are the arrangements and the other issues which they would like us to look at.

And the third major task before us is, of course, the review of the IGF itself.

So these are the three basic things that we need to do: review Hyderabad, start looking ahead at the meeting in Sharm El Sheikh and start the process of the IGF review.

So let's take up the first item, the Hyderabad meeting. The Secretariat has been consulting people to get their assessment, and I would request Markus to give us an overview of what has come out of this process of consultation.

SECRETARY KUMMER:

The stocktaking synthesis paper summarizes the reactions we have received. We received three written contributions from two different organizations, two contributions from a dynamic coalition and 26 responses to our questionnaire. All in all, they were extremely helpful, very thoughtful. They related to logistics and organizational issues, and also to substance.

In general, the feedback was very positive.

There's always room for improvement, but some of the suggestions are simply not possible to take up. The real-time transcription service, for instance, was in general terms extremely well appreciated. Some suggestions were made that it should be extended to all the meetings. However, there is a cost involved, and there are logistics involved and this would be a burden almost impossible to bear by the host country. Equally, the suggestion was made that interpretation should go beyond the UN languages. This is something we cannot handle. The UN works with six official languages, and this is a limit imposed by member states. The same goes for written translations. The UN can assure quality control for the six UN languages, but not for what goes beyond. Of course, we can look at voluntary, informal translation of, for instance, a synthesis paper in additional languages, but they can never be official translations.

It's very difficult to summarize in a few words the whole wealth of contributions we received, but there were some general threads that came out of the feedback. Some, I would say, recurrent items, that there's always room for improvement with regard to the technical infrastructure such as Wi-Fi, with regard to remote participation, also with regard to the panels. The gender balance was mentioned, the age balance was mentioned and also, in general, the involvement of young people, youth and also of children.

One point that was made was the linkages between the main sessions and the other events were not that clear in Hyderabad.

Also, the cross-cutting themes of development and capacity building did not come across that well, and maybe more attention should be paid on how to deal with these issues.

There was also the view that the format we used of panel sessions and open dialogues worked well, but for some of the issues, maybe we should look for other formats. The notion of mature themes was made, and the proposal was made that maybe we should look at a roundtable format to deal with some of these issues.

And also, there was, I think, a general concern that was made after all our meetings that there were too many sessions held in parallel, and we should make an effort, maybe, of having fewer sessions, of consolidating the program a little bit more, of making the program available further in advance. However, we should at the same time leave open space for ad hoc meetings, ad hoc sessions and spontaneous meetings.

We had provided a facility in the village square in Hyderabad, but the remark was made that it was not advertised well enough, that many people had not noticed it. However, it was used, and I think it was generally felt that it was a useful function to have a kind of space for ad hoc meetings. The village square, I think, on the whole was well received. There were some remarks made about the logistics of it, where it should be. But again, we have to look at the meeting venue and then decide on the basis of what is available.

In Hyderabad – I think we will go ahead again, in that response to a need of participants, but there the facilities will make it in a way a bit easier because there is a huge entrance hall. Participants will have to go through the village on the way into the main session hall.

Some comments were based on some subjective perception. One commentator said the village, while being smaller than on previous occasions, was more interactive. However, I can assure you that what we had in Hyderabad was bigger, both in space as also in number of participants.

But the point was made that we should outreach a bit more and bring in more organizations into the village.

I think I'll stop at that. As I said, it's difficult to summarize as it was many interesting details were made in the comments we received.

(COMMENTS FROM PARTICIPANTS)

CHAIR DESAI:

I would like to thank you all for your comments.

Certainly we met in very fraught circumstances, and I am truly grateful to all of you who, despite those circumstances, chose to come to Hyderabad to demonstrate your solidarity. We, in India, truly appreciated that, and I would like to convey that to all of you, also through you to your constituents.

I think the most important thing that I would get across in terms of the arrangements is the role of the host country. I was, frankly, far more engaged in India than I would have been in any of the others because I happen to live in Delhi, and I was in more or less continuous touch with them.

The most important thing that probably helped was that the government of India had no substantive agenda for the meeting. Their only purpose was that we want to host this meeting as efficiently as possible. And their only hope was that people would go away from that meeting saying, "Yes, you guys organized it well." They had no other goals or ambitions. And I think I would like to get that across, that one of the reasons why it worked is because they really did not want anything else other than for people to say that, "Look, you guys did a reasonable, good job of organizing it."

Second, and this was with some effort, they took the multistakeholder part pretty seriously and made a fairly determined effort to get nongovernment people engaged in the leadership part. So this is why you found that the chairmanship which was passed on to different people from India for the different sessions did involve stakeholders from many different segments. And they did not sort of monopolize it with government people. And that was valuable because it connected a lot of people in India to that process.

Let me just try and bring together some of the strands in the discussion so that we can move on from this.

First, in the broad sense of, "Is the IGF playing its role as a multistakeholder process?", the general agreement sense is that it has certainly succeeded in getting stakeholders working together on an equal footing. But there is probably a sense that governments need to be more involved and engaged in the actual operation, in the actual debates which take place in the IGF. There have been references to the problems of developing country participation in the IGF. The fact that we move from region to region will hopefully help. But that may not be enough, and we may have to address this issue as we go down. But beyond that, there is a sense in which I think we can see that, besides this set of problems, as far as the others are concerned, there is reasonable engagement. We have probably constructed something which is truly a multistakeholder process, and certainly people who are not involved in the process, who are outside, are showing a lot of interest in how

this is working, what the results are. And I certainly get a lot of requests to write about it, talk about it and so on.

But let's get down to our task, which is to look at the IGF's functioning. There are, I think, many references that have been made to our experimentation with the format, and I would recognize this. I think we have experimented. We have not been rigid. We have changed. I think every year, every IGF has been a little different from the previous one. And we tried something new in Hyderabad. Some things worked, some things did not work. For instance, somebody mentioned that by breaking up the discussion on a theme with a lunch in between, you sort of lost some continuity. Maybe the MAG can probably address some of these concerns and issues.

There has been talk about, "Don't be too stuck on one single format; change the format depending on the nature of the issue that you are discussing." A distinction was made about degree of maturity, and to use a roundtable format for certain types of issues but some more open dialogue on other types of issues. And again, we can examine how we could do this more easily.

One of the models that I've always been fascinated by is a combination of these. Many people mentioned the fact that people could participate more easily in the second half of the discussion. When we had the panel, we did separate the panel discussion and the participation by the audience, if you like. There used to be a program on French television called *Apostrophe*, and that was an interesting program because it sought to combine both, where you had a roundtable of people talking, and the audience was listening to them, but the audience had the opportunity and the right to interrupt. And in fact, at times the moderator would turn to the audience and sort of ask them, "Now, what do you think about what these chaps are saying?" type of thing. So in a sense, it broke this division between roundtable and audience participation by trying to do both in one structured format.

But for that, we have to address the other question which has been raised: you can't do that sort of thing if your subject is going to be relatively banal. It has to be something on which there could be different opinions, so that there is a sense in which you can actually have a debate and call forth for people's opinion. You really have to move the debate beyond the 101 stage.

So let's look at this. And I think the most important message I get from all of you is, be flexible. Don't be stuck on any format, whether you've inherited it from the past. And most important, don't say every session in every IGF must follow the same format. You may require something different. And so be elastic, be flexible, and see how you can look at it.

There have been many questions raised about the workshops, the number of workshops, the reporting in from workshops, the connection between workshops and the main sessions, and this problem continues to plague us, if you like.

This time we did make an effort at scheduling the workshops in such a way that there was a connection that was feasible and possible. To some extent, this was done, and it certainly helped in many ways. We have tried reporting in. I remember

we did this in Athens, but other than the people who were reporting in, nobody else was present in the room. So I'm not sure that's going to help, but we may have to think of some way of doing this.

Many people, I think, complained about the number of workshops, the need to combine. This is a perpetual problem which we will have to address, and let us see how we do it. And this is also the point about, keep informing people about what to expect in the workshops. And we may put down some minimum standard of information which should be available about who are the panelists, a one-pager on the agenda, et cetera, et cetera. I think all that is feasible.

A point came up about first users, the possibility of some sort of orientation. I'm sure we could look into that. And it is possible that we really shouldn't make this simply an annual gathering of people – of the usual suspects – because we have to reach out to a lot more people. But I do believe we have been getting new people coming in at every session, and I'm impressed by the fact that the participation, not just in the IGF but in the preparatory meetings for the IGF, continues to remain reasonably robust and high, and so I'm quite hopeful on this.

I think the big issues that we will have to address are issues about what people call outputs. And there's a distinction between outputs of the IGF and outputs from the IGF – the sort of things that people have mentioned as things which have come out of the IGF. One is voluntary policy cooperation, for instance, on child pornography. Or it may be on some other area of cyber-security. The spread of best practices. The emergence of national and regional IGFs and the dynamic coalitions.

Now, what we probably have to address here are a couple of things.

First, if you have an IGF which generates this interest in voluntary policy cooperation in a certain area, or an interest in a best practice, and somebody wants to find out more on how to pursue this, I think we may have to ask ourselves, who is going to follow through? Who is going to follow through something useful which emerges out of this IGF? What is it that we ought to do in order to ensure that this does get followed through, that there is some procedure, some mechanism, some facilitation, something which helps this to happen and come about?

And on the second thing, on national and regional IGFs and dynamic coalitions, I think they are very valuable, they play a very useful role, but I think we may have to find a way of connecting them with the IGF. In the national and regional IGFs, this is happening, because most of them have been designed to feed into the global IGF. Most of the people who have spoken on this have said that they consider this to be one of the more important products of the IGF, so let's find a way of making sure that we nurture this valuable product which has come out of this.

There are many other questions which have come about on remote participation, how to organize it and so on. And in every IGF, we should experiment with something. One thought I want to leave for the Egyptian hosts is that maybe what we can do on multilingualism is for an hour a day, make sure that the computers have no script other than Arabic.

***Extract from the Secretary-General's Report to the UN
Economic and Social Council on "Progress made in the
implementation and follow-up to the World Summit on the
Information Society outcomes at the regional and international
levels"***

The IGF moved into the third year of its provisional five-year lifespan and held its annual meeting in Hyderabad, India, 3–6 December 2008. The overall theme was "Internet for All." More than 1,400 participants from 94 countries took part in the meeting. The IGF has matured in several respects. The third forum allowed for discussions of politically sensitive issues in a climate of good faith, and succeeded in reducing people's apprehensions and concerns. The main sessions were organized as thematic days under the following headings: Reaching the Next Billion, Promoting Cyber-security and Trust and Managing Critical Internet Resources. The last day covered Emerging Issues – the Internet of Tomorrow and Taking Stock and the Way Forward. In parallel, 87 self-organized workshops, best practice forums, dynamic coalition meetings and open forums were scheduled around the broad themes of the main sessions and the overall mandate of the IGF.

Some common threads emerged from the discussion. Multistakeholder cooperation was seen as a prerequisite to tackle all existing problems. All users were part of the Internet and all actors had a shared responsibility to find solutions. While it was recognized that there was a need to discuss Internet governance issues globally, it was felt that there was a need for acting locally. There was a general understanding that there were no one-size-fits-all solutions. All countries had to find their own solutions, corresponding to their own situations. Through the sharing of best practices and the exchange of information, they could find solutions that were adapted to their needs.

The 2008 meeting also addressed the review process, as called for by the Tunis Agenda for the Information Society (para. 76). Formal consultations will be held at the fourth IGF meeting in 2009, to allow for a timely decision by the United Nations membership within the five-year deadline. The fourth annual meeting will be held in Sharm El Sheikh, Egypt, 15–18 November 2009.

In 2008, there was also a spread of national and regional IGF initiatives that fed into the annual IGF meeting. Two initiatives were reported from Africa: an East African IGF (EAIGF) was held in Nairobi, bringing together outcomes from national meetings held in Rwanda, the United Republic of Tanzania, Uganda and Kenya. Another meeting took place in Dakar, focusing on West African country issues for Internet governance. An IGF in the Latin America and Caribbean Region was held in Montevideo and a European Dialogue on Internet Governance (EuroDIG) was held in Strasbourg, hosted by the Council of Europe. National IGF meetings were held in the United Kingdom, in Italy and in Germany.

About the Book

Editors Biography

Don MacLean is an independent consultant based in Ottawa, Canada. His consulting projects typically involve research, analysis and policy development on economic, social and governance issues related to telecommunications, the Internet and ICTs. From 1992-99, he headed the Strategic Planning and External Affairs Unit of the International Telecommunication Union in Geneva, Switzerland. Prior to joining the ITU, he served in a number of senior policy and planning posts in the former Canadian Department of Communications. Mr. MacLean has a B.A. in Economics and Political Science from McGill University and did graduate studies at the Institut d'Etudes Politiques (Paris) and Princeton.

Authors

Sha Zukang	Under-Secretary-General, United Nations Department of Economic and Social Affairs (UNDESA)
Markus Kummer	Executive Coordinator, IGF Secretariat
Nitin Desai	Chairman, IGF Multi-Stakeholder Advisory Group for the IGF; Special Adviser to the United Nations Secretary-General for Internet Governance

The third Internet Governance Forum, held in Hyderabad, India from 3-6 December 2008, marked an important stage in the evolution of this unique, multi-stakeholder event that has attracted worldwide attention as an innovative experiment in global governance. The agenda for the Hyderabad meeting was organized around the same general themes as at the two previous IGFs. However, in a reflection of the growing maturity of the IGF, discussions were more sharply focused on important and controversial issues such as: the role of access and multilingualism in reaching the next billion; the competing claims of security, privacy and openness in relation to issues such as child pornography and protection; the transition to IPv6; the roles of global, regional and national governance arrangements in managing critical Internet resources; the implications of the 2008 financial crisis for the growth of the Internet; and the impact of climate change and other environmental challenges on the Internet and its users. The aim of the edited Proceedings of the Third Internet Governance Forum is to make the full richness of the discussions that took place at Hyderabad easily accessible. Extracts from the transcripts of panel sessions and open dialogues, as well as reports of workshops and other events, have been organized thematically. This will allow readers to “drill down” on subjects that interest them from the high-level presentations of expert panellists, through the general debate of open dialogue sessions, to the more detailed discussions that took place among smaller groups of participants.

Don MacLean is an independent consultant based in Ottawa, Canada. His consulting projects typically involve research, analysis and policy development on economic, social and governance issues related to telecommunications, the Internet and ICTs.



United Nations

IGF Internet
Governance
Forum