

## IGF 2016 Main Session Report

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Session Title: **Sustainable Development, Internet and Inclusive Growth**

Date: **December 7, 2016**

Time: **10:00 – 13:00**

Session Organizers:

**Elizabeth Thomas Raynaud**, MAG Member, Private Sector

**Hossam Elgamal**, MAG Member, Private Sector

**Juan Alfonso Fernández González**, MAG Member, Government

Host Country Chair:

**Yolanda Martínez**

Chief of the Digital Government, Ministry of Public Administration, Mexico

Moderators:

**Abdul Munhem Youssef**, CEO of Ogero Telecom, Lebanon

**Robert Pepper**, Global Connectivity and Technology Policy, Facebook, USA

Rapporteurs:

**Carolyn Nguyen**, Microsoft Corporation, USA

**Alejandro Pissanty**, ISOC, Mexico

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### **Part1: Sub session on Inclusion (women and youth)**

Speakers:

**Lenni Montiel**, UN Assistant Secretary-General for Economic Development, Department of Economic and Social Affairs

**Raúl Echeberría**, Vice President, ISOC, Uruguay

**Gabriela Rocha**, Executive Director, Laboratoria, Mexico

**Chuang LIU**, Professor, Institute of Geography and Natural Resources, China

**Daniel Abadie**, Undersecretary of Digital Government, Ministry of Modernization, Argentina

**Edmon Chung**, CEO, DotASia, Hong Kong, China

**Ailyn Febles**, President, Union of Informatics Professionals, Cuba

**Abeer Shakweer**, Advisor to the Minister of Communication and Information Technology, Egypt

### Questions posed to the Speakers and broader audience for discussion:

- What are the unique learning needs of different populations (e.g., children, youth, older people, people with disabilities, etc.) that will require different approaches to teaching skills related to accessing, using and benefiting from the Internet and ICTs?
- What barriers prevent other parts of the population from using and fully benefiting from the Internet/ICTs?
- What barriers prevent women from using and fully benefiting from the Internet/ICTs?
- What barriers prevent youth from using and fully benefiting from the Internet/ICTs?
- What barriers prevent other parts of the population from using and fully benefiting from the Internet/ICTs?
- What are examples of specific projects that have overcome barriers to inclusion for women, youth and special populations and what lessons can be learned that can be used to build pragmatic, scalable and replicable models for inclusion?

### Notes from speakers' comments:

**Yolanda Martínez:** Digitizing government services helps bridge gaps. Mexico and LAC are very unequal and the only way to bring equality is equal access to government services.

The example is Lupita, a single mother, supported by government services which include insurance for her absence so her children can continue to study even if she fails. She needs the State's program to guarantee her children's education.

Government works to get 100% of services online to democratize them, not only through access but also through skills development that catalyze improvement in people's lives. People have to know how to use technology.

**Raúl Echeberría:** Build capacities to use the Internet for people's life. Requires empowering communities, which ISOC does on building community networks. Both things go together.

**Gabriela Rocha:** Laboratoria empowers young, poor women with access to quality education and by training them as Web developers. Women are particularly disempowered, with 2/3 not having own income. IT industry is the fastest growing and you don't need a university title to become a developer. The program lasts only 6 months. Women in the program pay for their education AFTER they start earning. Working in Peru, Chile and Mexico.

**Chuang Liu:** Mme. Qihang Hu's efforts to bring the Internet to China were continued by her work in ICANN and many other institutions. She changed China. Qihang Hu is the mother of the Internet of China. She gave all her love to the Internet. She is an example.

**Daniel Abadie:** There are many organizations and collaborations with the State trying to empower women in Argentina. The government also works on education to move Argentina from grain and beef to technology producer.

**Edmon Chung:** It is strange to talk about inclusion of youth because they are inside the Internet already. The issue is ownership, participation in governance and defining the future. All you need is open doors. Youth needs some capacity building and empowerment. The capacities needed are to effectively participate and to allow them to have a say.

**Ailyn Febles:** I come in the name of civil society in Cuba, grouping technologists. Unión de Informáticos de Cuba. Isolated efforts are not enough; civil society must play a decisive role. Policies must take into account differences in conditions between countries and within countries, for a true globalization of knowledge. Secure, correct and inclusive growth are a right in Cuba; teaching English since childhood and general culture. Blockade is the cause of incomplete development.

Projects: “ciudad mira sus ríos” in Camagüey. Inclusion of women is active. A large number of initiatives bring together youth, women and others. We will look for concrete and productive initiatives for the correct use of the Internet. A better future is possible.

**Abeer Shakweer:** We all agree on inclusion and this must include people with disabilities who suffer double discrimination. The Ministry has put this group high in the agenda for inclusion and empowerment, in cooperation with the ITU. Proactively hire people from this group, launch the Arab Regional Center for IT in people with disabilities.

• **Robert: Pepper:** This example is great because it represents using the Internet for inclusion, not only looking at inclusion into the Internet.

**Raul Echeberría:** The Internet must be relevant for women. Women have to be technology and content developers. Every ISOC project has a gender perspective. Regarding youth, what is critical is connecting the children, not only the schools. ISOC is running programs for including youth in the IGF and other important events.

**Robert Pepper:** We need to address the disparity in usage between men and women, boys and girls.

#### **Q&A Discussion:**

- Jesús González de Reynosa: Youth wants to grow and for the world to evolve through ICTs.
- Abdel Jalil Bachar Bong, Chad: What are the best programs? Real projects are needed. There are no young people on the panel and there should be.
- Carlos Francisco Flores: In the Mexican environment, how can a budding entrepreneur cut through the obstacles to start a company? Start-ups are going down because of lack of sustainability, taxes, etc. – what is the structure to solve this, i.e. to develop an industry?
- Patricia Contreras: What are the toughest obstacles Laboratoria has bumped into?
  - Gabriela Rocha: There are many challenges. There is huge potential that is not tapped because of lack of opportunities. Laboratoria has a selection process to identify women with high potential. They learn well and very fast. The challenges have to do with their social context. Discrimination is a factor; when the women are empowered their husbands start limiting them. Society does not facilitate conditions for these women. There is large

demand for talent in the companies, so they open their doors and obtain benefits from diversity as well.

- Raúl Echeberría: In ISOC women lead. Programs identify women entrepreneurs all over the world and now they are in leadership positions. Leading by example is important.
- Yolanda Martínez: This year there was an important reform to facilitate the creation of new firms.
- Iván Barreto, Asociación De Maestros De Cuba: SDGs give us an orientation to follow in developing the Internet. Teachers must be part of the effort. How do you conceive these projects so that policies recognize Internet as a way to improve education?
- Lebanon: We may not have a problem with capacity-building. What is needed is for more companies hiring more women. Is it possible to set a percentage of women hired as a goal?
- Azael Fernández: You need to have users getting healthy habits, more ergonomic devices and avoid damaging health. Also provide security etc.
- Cuba: I am representing Cuban civil society. We must also say there is a project to provide free access. Women in Cuba have more equal conditions but not equal pay.
- Davey Sun: Old people cannot compete with the young. Inclusion should include the old too.
- Edmon Chung: Youth participation in panels is important. There is a workshop for that. Markets fail e.g. for the elderly and interventions must address market failures.
- Robert Pepper: Connectedness actually increases inequality in income until high coverage
- Yolanda Martínez: To our colleagues in the education sector: we all agree on the need for inclusive, integral programs which empower teachers, develop teachers' digital skills and thus generate more inclusive development through responsible use
- Daniel Abadie: Internet is not the end, it's the means. Teachers race behind their students.

#### **Rapporteur summary:**

- The phrase "content is king" was coined in the 1990s, to mean that providing content had become a more important competitive advantage than providing access to the Internet
- The use of the word "content" along this session suggests passive content, and leaves to a side the "prosumer" approach and interactive, value-adding services such as e-commerce, which are increasingly available to populations that were marginalized earlier, like the poor, the young, women, etc. Their interactions make them much stronger than would the mere consumption of "content" and also enrich the Internet much further.
- The importance speakers have ascribed to online government services is indeed high and must continue to be a priority. These services must be considered from a user perspective, and in their constant renewal information and services that have previously been found useful should not be removed nor made harder to find and access.
- Open data is an important trend; support must continue for users to be able to extract value from it.

- The “shiny new thing” approach to new content and services should not ignore:
  - The fundamental need for interoperability;
  - Technical and usability standards;
  - Using the standards that provide most generality and access. An example is the use of HTML5, which enables users on many different platforms to access the same content and in the same way, and makes the job easier for the content providers, especially the small and unempowered ones, as they only have to develop their services once instead of customizing to each target platform.
  - The contrast between apps and the open Web (even further, the open Internet) must be kept in mind, in favor of the most openness and of access with the minimal technical and resource requirements. The poorest and the most marginalized users rely on narrow, unstable connections and on low-powered, often not state-of-the-art equipment
  - Cloud-based services lower the barrier to content and service creators. Account must be taken, though, of the need users will have of stable, constantly available broadband access.

**Best practices emerging from the sub session:**

- Government services including large-scale impact actions like facilitating the creation of new firms
- Practices like those shown by “Laboratoria” which focus on a target population (in this case, young, unempowered women with an incomplete education), educate and empower them, and enlist them to allow scaling up the work to serve larger and more-distributed populations.
- The example provided by one of the speakers may serve to inspire many others; Prof. Qiheng Hu’s career shows how great achievements can be arrived at by a combination of intelligence, vision, hard work, and embracing the open Internet to the fullest extent possible within national conditions.
- Actual empowerment of the young and otherwise marginalized comes not only from training for skills but also from training for leadership and participation in decision-making.
- Government intervention for inclusion, such as the schools and work positions for people with disabilities shown by Egypt in the session, may be the only one with sufficient resources to achieve long-term scaling-up to large populations and geographical extent.
- The cultivation of digital skills for teachers is an indispensable axis for societies to be able to create content and services that feed the achievement of development goals in a sustainable manner.

## Part 2: Sub session on Capacity Building: What are the obstacles to inclusive growth?

Speakers:

**Rajan S Mathews**, Director General COAI, India

**Antonio Garcia Zaballos**, Lead Specialist, Inter-American Development Bank

**Edmon Chung**, CEO, DotASia, Hong Kong, China

**Guy Berger**, Director for Freedom of Expression and Media Development, UNESCO

**Wael Abdel Aal**, CEO Tele-Med International, Egypt

**Raúl Echeberría**, Vice President, ISOC, Uruguay

**Eric Loeb**, Senior VP, AT&T, USA

### Questions posed to the Speakers and broader audience for discussion:

- What are the skills necessary to access, use and benefit from the Internet and ICTs?
- What are the different ways to think about “digital literacy?”
- What are the unique learning needs of different populations (e.g., children, youth, older people, people with disabilities, etc.) that will require different approaches to teaching skills related to accessing, using and benefiting from the Internet and ICTs?
- What are specific examples of capacity building that have led to scalable and replicable models, including lessons learned about what works and does not work?

### Notes from speakers’ comments:

**Rajan Matthews:** The government of India has a vision of making sure that 1.3 B of its citizens are able to get connected to broadband. A first major issue is that capacity building vis-à-vis coverage must be covered by the private sector, as the telecom industry in India has been privatized. This means that the private sector is now expected to provide approximately \$10 billion every year for the next several years. Another challenge is citizens’ education, where there are 26 official languages. Partnership between government and the private sector is key to success. Enlightened policy and light touch regulations are also critical.

**Antonio Garcia Zaballos:** Capital intensive initiatives need involvement from all different actors. There is a need to address the sources of financing, and conditions of investments and financing. The roles of multilaterals and multinational organizations are essential, and the ministries of finance and tax also need to be involved. Coordination is needed between government, private sector, academics and the banks.

**Edmon Chung:** Youth empowerment is a critical element for capacity building. dotAsia has been very focused on involving youth at the IGF, including a youth IGF program at the APriIGF. What has been effective, and equally applicable to youth, women, and elderly, is to (1) let them “run before walk” – if youths feel empowered, included, have fun, then they are more motivated to learn,

especially for those youths who have not had adequate development or access to traditional education; (2) peer-based learning – the role of teachers has changed with the Internet, and they need to facilitate peer-based learning.

**Guy Berger:** Peace, justice, and strong institutions are foundational to achieving any sustainable development. Public access to information and fundamental freedom cannot be taken for granted, and should be an emphasis at the IGF. UNESCO has addressed this with its global movement on media and information literacy, which is focused on developing chapeau skills, both online and offline. Three bundles of competencies are defined, which are intended to be applicable to everyone: (1) need to understand the Internet (e.g., actors, interests, agendas, what it means to get free service, problems and opportunities); (2) need to know their rights (e.g., privacy, freedom of expression); (3) how to use the Internet (e.g., distinguish truth from lies, convert information into knowledge and innovation). This is not just about MOOCS, and it incorporate digital literacy.

**Dr. Wael Abdel Aal:** The practicing physician warned “don’t be late to the future, because the future has already left.” The speed of change needs to be noted, and along with it, the restructuring of societies that is happening. The abundance of communication devices and cloud services are the strongest elements transforming healthcare, but things need to be adapted. Lots of things that used to work will no longer work, and those who don’t shift quickly will become obsolete. These factors need to be built into any capacity building initiatives. There is a need to keep on open mind and be flexible on adopting approaches that work. Those who don’t have formal education can still contribute and succeed. There is a need to have many pilots, and build on those that are successful.

**Raul Echeberria:** The Internet Society development strategy is built on four pillars: Building infrastructure, building capacity, bringing expertise from work on the ground to advise on policy, and capacity building for empowered communities across all the needs to achieve the SDGs.

**Eric Loeb:** Fundamental supply side issues need to be addressed, including universal service fund reform (are they being used to promote foundations for building out services of the future and the digital ecosystem); tax policies that are aimed at enabling an inclusive society and economy; national broadband plans which have been shown to be effective at addressing both supply and demand side issues, but they need to be kept up to date.

#### **Remote comments from Havana, Cuba:**

Experience of an institution that has for 29 years, given access to ICT. It has 600 technological hubs and provides remote courses. This year, 72,000 women, and 138,000 people with disabilities have been involved. There is also a social network with other networks in the country.

#### **Q&A Discussion:**

- Lebanon: Need for data and measures on sustainability and inclusiveness, so we can know what has been achieved, how much more still needs to be done, how much money is still needed.

- Mathews: Certain metrics are tracked, e.g., number of cell towers, where there is no coverage, number of people receiving connectivity
- Mariana, University of Guadalajara: Are there communities that don't want to be connected?
  - Matthews: In India, some communities are worried about the impact of electromagnetic field exposure from cell towers, and government has had to conduct massive educational outreach.
  - Chung: Some elderly don't want to be connected due to fear, and needed to hear about the benefits (e.g., connect with their families).
  - Aal: Need to communicate success to motivate other communities to join, as was the case with telemedicine in Egypt.
- Wisdom Donkor, Ghana: Thousands of specialized multistakeholder collaborations will be needed to realize the SDGs by 2030. Infrastructure projects have had the greatest attention, but they are only one of many essential types of cooperation needed. Need to create an enabling environment, that starts with infrastructure access. Such environment should include: shared infrastructure, local content, open government data (which will bring transparency, trust, enable innovation, and economic growth), judiciary and law enforcement. The impact of connectivity should also be shared more broadly.
  - Mathews: Support from government is necessary to build out the infrastructure necessary.
  - Berger: The enabling environment should also address capacity building. Everyone should be aware of the opportunities available to them when they use the Internet, and they need to experience empowerment. If people don't have the competencies, they will use only 5% of its potential.
  - Echeberria: Agree with the need to promote an enabling environment, and also investment, innovation, and entrepreneurship. Private-public partnerships are crucial to realizing the SDGs, which provides a common platform and opportunity for collaboration not just on Internet connectivity, but also education, health care, jobs, etc..
  - Martinez: Communities need to own the process, based on learnings on a tender process in Mexico. Multistakeholders and community involvement will enable the Internet to have local impact.
- Mauricio Kiros, University of Guadalajara: What are the programs that are being implemented? Are programs available on an equal footing and have appropriate reach?
  - Martinez: The IGF is a great space to learn about the programs that are being implemented, build networks, and share ideas that work.
  - Loeb: These programs are important to generate demand, but first, people need to embrace these tools. AT&T's Digital You program is an example of a program with tools to increase people's comfort online.
  - Matthews: India has implemented a push strategy, where every government department is required to have forms on the Internet, so simple things like booking a train ticket can be done online. People are finding that they must learn to access the Internet to gain this convenience.

- Daniel Roscoe Garcia, Mexico: Are there laws to create a culture of the Internet?
  - Martinez: In Mexico, the Internet is a Constitutional Right. There is also a policy of inclusion that is the responsibility of the State, and part of the National Digital Strategy
  - Echeberria: In Uruguay, there are public policies to make access available to all, connectivity to 100% of the country, 100% of schools and students have their own computers. This is being extended to elderlies and adults. The government is also committed to that 100% of government processes through portals.
  - Berger: UNESCO web site has information on improving digital literacy.

### **Rapporteur summary:**

- A consistent theme interwoven throughout the discussion was the need for more holistic and open-minded approaches to capacity building to realize the SDGs and enable inclusive growth. It is acknowledged that although affordable and ubiquitous access, which has been a focus of many of the foregoing dialogues until recently, is a necessary condition, it is not a sufficient condition for inclusive growth.

Additional issues that would also need to be addressed in more *holistic* and comprehensive approaches to capacity building include the following:

- Enlightened policy and legal frameworks: strong and broad support from government, accompanied by enabling policy and regulatory frameworks, are essential for any plans to enable inclusive growth. Examples of such frameworks include those that
  - Encourage innovation,
  - Create and maintain national broadband plans that address both supply- and demand-side needs,
  - Enshrine Internet access as a constitutional right (e.g., in Mexico),
  - Codify ubiquitous connectivity for everyone (e.g., Uruguay) and the teaching of English in schools to enable access to the vast amount of information online.
- *Financing and investments*: favorable conditions, including incentives, are needed to encourage investments and financing of infrastructure initiatives, especially those that are capital intensive. Ministries of finance and tax should be engaged, and regulatory reforms considered as appropriate, including tax and universal service fund reforms. National broadband plans, as mentioned above, have been shown to be effective at addressing both supply and demand side needs, but they need to be kept up to date once created.
- *Literacy*: basic literacy skills are essential for everyone to access the Internet and retrieve relevant information. Ideally, this also requires that support of local languages be widely available to enable everyone to access the online contents in their native languages.
- *Technology*: a number of technology innovations are needed to support truly inclusive growth. Some examples that are not discussed here, but have been brought up in other for include the following. At the infrastructure level, innovation is needed to enable last mile access to remote villages that are not on national power grids and/or pose geographical challenges to traditional

telecommunications infrastructures. Other technologies such as Internet eXchange Points enable cost-effective routing of traffic. At the application level, universal acceptance technologies can enable acceptance of email addresses and URLs in native languages.

- *Multistakeholder collaboration:* many of the panelists noted the importance of multistakeholder partnership in these initiatives. Successful initiatives need the stakeholders to build trusted relationships with each other; transparency and accountability are also necessary in these partnerships. For local initiatives, the communities must be involved and have ownership on the benefits and services provided.

A major issue in capacity building is to be able to demonstrate the benefits of connectivity to those who are either unconnected or have chosen not to connect. Technology can and has fundamentally transformed societies and government services. As such, approaches that used to work will no longer work, and new challenges are introduced that must be addressed. This requires those involved to keep an *open-mind*, be flexible, and have a willingness to re-think what are the issues involved, and consider new solutions. Examples of capacity building approaches that take these elements into consideration include:

- UNESCO's global movement on "information literacy," which advocates a holistic approach to educating users, with emphases on the need to communicate the benefits to each individual user. With information literacy, capacity building is not just about connecting, but also addresses people's need to understand the Internet, their rights on the Internet, and how to use the Internet to realize their potential.
- Enabling people to feel empowered personally with "run before walk" approaches, where people are able to experience the benefits first. An example is bringing youths to events such as the IGF so they can participate in these discussions, and experience how they can impact future developments. Government-push solutions, where more convenient services are available online, is another example. Creative thinking on these types of solutions, especially how they may apply to other populations such as women and the elderly, are necessary to enable inclusive growth.
- Peer-learning is also great way to motivate people and communities. This can range from communities learning about the benefits of telemedicine and wanting to get connected, to youths (especially those who are either not traditionally educated or have access to traditional education) learning about different opportunities that are available to them through Internet access. However, peer-learning also applies to policy stakeholders, who should take note of what works, and the contexts in which these practices were deployed.

Lastly, a comment from the floor suggested that metrics on capacity building and inclusiveness are necessary to measure current progress, as well as to understand the magnitude of investments and efforts still necessary to achieve inclusive growth.

### **Part 3: Sub session on Local Relevant Content: Importance of local content and language to inclusive growth**

Speakers:

**Daniel Abadie**, Undersecretary of Digital Government, Ministry of Modernization, Argentina

**Megan Richards**, Principal Adviser, DG CONNECT, European Commission

**Raúl Echeberría**, Vice President, ISOC, Uruguay

**Wael Abdel Aal**, CEO Tele-Med International, Egypt

**Chuang LIU**, Professor, Institute of Geography and Natural Resources, China

**Eric Loeb**, Senior VP, AT&T, USA

**Jari Arkko**, IETF Chair

#### **Questions posed to the Speakers and broader audience for discussion:**

- How important is local content to increasing Internet adoption, use and benefits?
- What are the different types of local content?
- What are examples of projects that have developed local content, particularly those that involve multiple stakeholders, and what lessons can be learned from each of those projects?
- Are there different models of local content development that can be customized for local circumstances to increase the probability of building sustainable local content creation organizations and businesses?

#### **Notes from speakers' comments:**

**Daniel Abadie:** Connection does not equal access. Local content is needed for inclusion. The Internet presents the possibility of building a community and new opportunities – for young to link with old, for entrepreneurs to teach others to sell products. As civil society and technical community, we need to provide answers to the question “Internet, what for?” for everyone if inclusive growth is to be achieved.

**Megan Richards:** Support of local languages is essential to ensuring that local contents will be developed. In Europe, there are 23 official languages, two of which use non-Roman scripts. For Europe and the rest of the world, local languages and Internationalized Domain Names (IDNs) must be supported to ensure that people have access. IDNs make up only a small percentage of the 1,930 new gTLDs launched in 20014. Another necessary element is development of digital skills.

**Raul Echeberría:** Local content improves the experience for users. And if there are more users, there will be more investments, thus completing the virtuous cycle. Government services are a form of local content that can make the Internet relevant for everyone. The Internet also provide opportunities to make money – in our project in India, people who were connected have the opportunity to double their incomes.

**Dr. Wael Abdel Aal:** Government can be obstacles or facilitators; however, government will be enticed to act if they can see benefits. The telemedicine program in Egypt was started as a small project in an underserved, remote area. With each success (i.e., value of the project proven), the program is gradually built out with services and contents that respond to local needs, along with awareness campaigns to the public. Government and the funding communities are partnering closely with the private sector and the local communities, building out a sustainable ecosystem that can grow, coupling education, awareness, and service delivery at every step. In addition to providing better health care, the program also saved 2 billion Egyptian pounds per year in travel cost for the healthcare providers – providing further incentives for governments to invest in connectivity for these remote areas.

**Chuang Liu:** No one organization will be able to collect and store all the data related to the SDG, creating the need to develop common methodologies and principles for sharing big data created from local observatories and research. The Nairobi data sharing principles were developed for the research community to share data on developing countries that were the results of publicly funded research. The data sets are peer reviewed, and linked to a global sharing infrastructure. Training workshops on these principles are being held in a number of countries around the world to build out further capacity for data collection. In summary, to enable analyses of progress on the SDG, 3 elements are critical: open data that can be shared; common bottom-up methodology for data sharing; and local data collection, but networked globally to enable all society to benefit from the knowledge gained.

**Eric Loeb:** AT&T's Escuela Plus program provides educational contents for teachers and students in Latin America, using the paid TV satellite infrastructure to reach some of the remote and underserved communities.

**Jari Arkko:** Both quality and quantity are needed in the creation of locally relevant contents. More generally, openness, the ability of everyone to create services and businesses, the ability to trust the Internet, and lack of surveillance and censorship are basic criteria for people to use the Internet. People need local contents, in local languages, that respond to their needs. But there are many practical barriers. Technology such as internet exchange points, submarine cables, cloud services can help. Appropriate regulatory environment that enable people to provide local content services is crucial. Government services in the cloud is another form of local contents. Many stakeholders need to work together, including both global and local entities.

**Bobby Beta, Bollywood Director (from the floor):** About 70% of Internet traffic in most countries is entertainment. The Internet is now a new delivery system, changing how content is produced and consumed. Local content can now be distributed widely and cost-effectively in India, as well as to those who do not live in India. However, the way to monetize contents has not changed, and new business models are needed. This is an important question that this forum should address.

#### **Q&A Discussion:**

- Juan Alfonso Fernández González: In Latin America, only 26% of the content is local, which is lower compared to other regions in the world, even Africa. An important question is: what are appropriate and sustainable business models for use in developing countries to finance production of contents that need to be free for users, e.g., applications for health care, social

inclusiveness, education, etc.. The Frida Awards in Latin America gives grants to develop these types of applications, however, records show that these applications die out when the grants dry up.

- Aal: Existing business models on the web include pay as you go, subscription, or free where the service is subsidized by a sponsor. The model that is used must be individualized and appropriate for the service offered. This is a million/billion dollar question.
- Arkko: This is a global issue, e.g., the news media is struggling with this question on business model. User-generated and professionally-generated contents must find ways to compete differently, and the news media must transform itself.
- Loeb: The future of mobile is video and the future of video is mobile. These are traditionally different sectors with different business models. In this new world, there must be flexibility to try new business models, e.g., multisided business models that can blend subscription, distribution, advertising, in a way that delivers good value to consumers. Or instead of one traditional way to generate revenue, there may be marginal ways to deliver value and generate revenue.
- Liu: There are three different models in China: people develop contents and data to share with their others; government invests and develop contents and data to share in China; or government invests and develop contents and data to share worldwide.
- Echeberría: There are no relevant contents because there is not a big market; but also there is not a big market because there are no relevant contents. Government can change this by producing contents to promote local culture, local productions, and provide their own contents – and note that there are more opportunities for these contents to be consumed because of the power of the Internet. Uruguay only has 3 million people, but there are 600 million Spanish speakers in the world, and it is now possible for online contents/movies to reach this large population via channels such as YouTube.
- Pisanty: We should not be discussing whether access or content is more important (an old debate from 1996), and instead consider the notion of services, and how they can transform the way people do things. Contents imply passive consumption, whereas services imply interaction and using the contents to make something else happen. Also, it is important to focus not just on producing contents, but also on a technical infrastructure that is necessary to facilitate and enable content production by anyone, including cloud interoperability, and a more open environment for intellectual property to allow people to do mash-ups. Regarding business models, money is not available to finance large projects for content production, so there should be policy to foster smaller production, such as those by individuals.

#### **Rapporteur summary:**

- There was general agreement that there is a critical need to support local languages and local contents to enable inclusive growth. Technology has a role in enabling this, for example, in supporting internationalized domain names, email addresses and contents.

- With more locally relevant contents, the user experience will be improved and more users will see the benefit of connecting to the Internet, resulting in more users wanting to connect, thus expanding the market, and attracting additional investments for not just relevant contents but also interactive services. This is a virtuous cycle for inclusive growth. Development of digital skills are thus foundational to the achievement of the SDGs.
- The challenge is though how to drive creation of local contents, and where to start. The following were discussed:
  - Government services: Governments can be obstacles or facilitators. If the benefits can be clearly demonstrated (e.g., cost saving for health care, improved education), then government has additional incentives for funding more online services. More people will then use these online services instead of waiting in line, creating further incentives for investments, again closing a virtuous cycle.
  - Opportunities to make money: Locally produced contents now have a much larger potential global market. For example, only 26% of the content is locally produced in Latin America; but with the Internet, any of the 300 million Spanish speakers around the world is a potential consumer of such contents.
  - Infrastructure that facilitates production and enables sharing of contents globally: There are both technology and policy issues. Barriers for creating contents should be removed, intellectual property issues addressed, and support provided for the media and arts communities. The sharing of contents needs appropriate platforms. Privacy, security, IXP, interoperability of contents and platforms such as cloud, and open standards are all parts of an enabling infrastructure to achieve this sharing globally. Sharing of local data globally needs bottom-up methodology with appropriate data sharing principles.
- There are outstanding but important questions on how to finance the production of local contents and how they can be monetized. There are a lot of user-generated contents that are very low cost to generate, but contents relating to health and education also need to be produced. The challenges of monetizing contents were acknowledged by all. New business models for different sectors need to be explored. Flexibility in supporting new business models was also brought up.
- Government has a role in encouraging relevant local content and services development. But multistakeholder approaches and processes are essential, involving the technical community, government, business, civil society, as well as local and global entities, if the SDG and inclusive growth are to be achieved.

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