SHAPE YOUR DIGITAL FUTURE!

SUMMARY OF IGF 2017 ABRIDGED REPORT

IGF Internet Governance Forum

The 12th Internet Governance Forum (IGF): 'Shape Your Digital Future!'

18 - 21 December 2017
Geneva, Switzerland

Summary of IGF 2017 - Abridged Report

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EDITOR'S INTRODUCTION

This report of the 12th Internet Governance Forum in Geneva, Switzerland on 17–21 December 2017, takes the same structure that we introduced at the 11th meeting, following positive feedback. As such, the report mirrors the two main organisational planks of the meeting:

• Summaries of the high-level and main sessions, which take place before the biggest audiences and cover major themes and collective reporting from the IGF's key intersessional activities
• An introduction and reports – some extensive – of the many other sessions (mainly workshops, IGF Dynamic Coalitions and Open Forums) grouped into eight themes, such as access and diversity, human rights and cybersecurity.

The theme groups will become more important to the IGF meeting as internet governance becomes such a major subject – as like all such subjects, it is inevitable that specialist themes develop and certain experts are attracted to them. Entire conferences are now dedicated to subjects such as the digital economy and cybersecurity, for example, and it is crucial that the IGF has high quality discussions and evidence on the importance of Internet governance and multistakeholder working that will influence other specialist forums.

So, much of the detailed discussion now takes place in themes, and in subsets of themes, and this finer "granularity" will increasingly be reflected at the IGF and in our reports. A number of the main sessions also took a theme approach, notably on digital economy, gender and cybersecurity at IGF12, but there is commitment to internet governance as an overarching theme throughout all main sessions and indeed in most workshops and Open Forums.

In this IGF12 report the chair's executive summary provides a detailed description of how the meeting unfolded, and how topics were organised to meet the twin objectives of major themes and finer detail. And the overall theme of the meeting, "Shaping our future digital global governance", presented in a high-level main session, could not have been more explicit about the commitment to internet governance and set the tone for the subsequent sessions.

A number of sessions in the themes could belong in two or more themes – for example, access and diversity issues are common to gender and youth, and human rights. Fake news – one of the big topics at IGF12 – made a strong showing in both human rights and emerging issues. But the IGF organisers have taken care to ask session proposers to tailor their approach to best suit each theme, with discussion points and speakers to match.

Also as for IGF11, we have produced both long and short reports. The long version contains detailed accounts of all the main sessions, and sessions in the eight themes. The short report has less detailed accounts of the main sessions and summaries of the eight themes.

Throughout, each session title has a link to the full transcript and video and unedited session reports on the IGF website.

Included in both versions is the full chair's executive summary, and brief highlights of activities not included in the main programme, namely lightning sessions, and selected Day 0 sessions (Day 0 comprises events before the main meeting starts on Day 1).

We also draw attention to reporting on gender attendance at sessions, which is at the end of the unedited reports on the website. Increasing participation by women is of great importance to the IGF, given that the Internet and digital technologies have traditionally been male dominated, and also that

women and girls are still excluded as users in many developing countries. Indeed, issues concerning gender were covered extensively in a main session on gender – the first time it had featured at this level at the IGF – and in workshops in the gender and youth theme, and were a particular highlight of IGF12.

The IGF annual meeting is generating an increasing amount of material, With the mandate for the IGF now running until 2025, once again we welcome suggestions on any aspects of presentation that the community would find of value.

SUMMARY OF PREPARATIONS

Preparing for the next IGF starts almost as soon as the last one finishes, and is the remit of the Multistakeholder Advisory Group (MAG), supported by the IGF secretariat, which manages proposals for sessions and generates documents for the MAG to consider at its meetings. The meetings are both face to face and virtual, with two key in-person meetings taking place to discuss and finalise the IGF programme and organisational issues. These meetings have slots for open consultation with the IGF community.

The timeline for IGF12, held in Geneva, gives a good idea of the work involved on the programme:

• The first MAG meeting was held on 1-3 March in Geneva

• Call for workshop proposals closed on 3 May 2017; call to hold Open Forums closed on 29 June 2017; call to request booths at the IGF Village closed on 21 July 2017; call to reserve slots for organising pre-events during Day 0 closed on 21 July 2017 (and Day 0 was agreed to be held at the Centre International de Conférences Genève (CICG) on Sunday 17 December 2017)

• Call for main session templates were open until 15 August 2017

• There was a call to organise remote hubs, which allowed participation for those unable to travel to Geneva

• Call for IGF Dynamic Coalition (DC) slots closed on 21 July 2017

• Three new Best Practice Forums (BPFs) were approved: BPF on Cybersecurity, BPF on Gender and Access, BPF on Local Content

• A third phase of the Policy Options for Connecting and Enabling the Next Billion(s) initiative (CENB III) was approved

• The following MAG working groups to help facilitate the preparatory process were approved:
- Working group on Communication and Outreach (WGCO)
- Working group on IGF Improvements (WG-IMP)
- Working group on Multi-year Strategic Work Programme (WG-MSWP)
- Working group on New Session Formats (WG-NSF)
- Working group on Workshop Review and Evaluation Process (WG-WREP)

• The second MAG meeting was held on 12-14 June in Geneva

• A number of virtual meetings closed off outstanding issues.

While the programme tends to get the limelight, the IGF secretariat also works on all the administrative details of hosting a major conference with high-level speakers, in this case at the Palais de Nations, the UN office in Geneva. More than 2,000 people attended IGF12 in person, and the secretariat organised:

• 4 host country and ceremonial sessions
• 8 main/special sessions
• 99 workshops
• 45 open forums

- 4 Best Practice Forum (BPF) sessions
- 15 Dynamic Coalition (DC) sessions
- 8 National/Regional Initiative (NRI) sessions
- 13 sessions classified as "other"
- 24 lightning sessions
- 40 Day 0 events
- 55 booths/stands in the IGF Village.

Note that each session at the annual IGF is a multistakeholder exercise in itself, comprising proposers, organisers, moderators, and speakers working on an agenda and format that reflects the nature of the session, catering for participation and diversity both at Geneva and remotely, and referencing previous sessions on the same theme (if applicable) and providing supporting documents and links – plus how it fits with IGF themes.

CHAIR'S SUMMARY

The 12th Internet Governance Forum (IGF) was hosted by the Government of Switzerland from 18 to 21 December 2017, at the United Nations Office in Geneva (UNOG). The meeting marked the second gathering of the global multistakeholder IGF community since the renewal of the IGF's mandate for 10 years by the UN General Assembly. With the overarching meeting theme, Shape Your Digital Future!, the 12th IGF was a platform for engaged and informed discussions about policy issues concerning the Internet, and how the Internet can help to achieve the UN Sustainable Development Goals (SDGs). The traditional Day 0 of the meeting, on 15 December, comprised many diverse events, and was held at the Centre international de Conférences Genève (CICG) in Geneva.

In the course of four days, more than 2,000 delegates from over 142 countries participated in over 200 sessions at the IGF, with thousands more participating online. The programme was developed in a bottom-up and inclusive manner in consultation with the growing IGF community, with a view to enhancing wide-ranging and diverse multistakeholder participation. The meeting addressed a broad range of themes and issues including

• Future of global cooperation on digital governance
• Impact of digitisation on democracy, public trust and public opinion
• Internet and the SDGs
• Access and diversity
• Digital transformation and its socioeconomic and labour impacts
• Youth and gender challenges pertaining to the Internet
• Protection and promotion of human rights online
• Cybersecurity
• Intended and unintended global impacts of local interventions
• Enhancing multistakeholder cooperation
• Critical Internet resources
• Internet governance capacity building
• Other emerging issues that enhance and affect the future of the open Internet.

The IGF is unique in that it is convened by the United Nations Secretary-General as an open, multistakeholder forum bringing all stakeholders together as equals. Its UN mandate gives it convening power and the authority to serve as a neutral space for all stakeholders. Exchanges throughout the week recognised the important contribution of the Internet in promoting social inclusion and economic growth, and its potential to contribute to achieving the SDGs. The importance of the Internet and its governance as a powerful tool to promote social inclusion and economic growth, using transparent and inclusive multistakeholder approaches, is clear.

To promote extensive stakeholder inclusion, transcripts and webcasts from all of the sessions were made instantly available throughout the meeting and workshop reports and summaries of all the sessions were published on the IGF's website. To complement these outputs, the IGF 2017 Host Country, in cooperation with the IGF secretariat, IGF MAG chair and the main session co-organisers, delivered sets of key messages, called **Geneva Messages**, from each of the main sessions, which were published online and included in this report in the main and high-level session section. Once again the daily summaries of the deliberations by the Geneva Internet Platform proved to be a valuable resource for delegates on site and remote, including journalists.
Providing even further opportunity to participate and enhancing institutional memory of the dialogue that took place, all sessions were also livestreamed, and session videos were uploaded for online viewing. IGF social media channels such as Twitter #IGF2017 and Facebook were also particularly active during the busy week, and facilitated additional platforms for dialogue. UN press releases were

furthermore produced and made available to the global media to further the IGF's outreach. Daily press conferences with special guest speakers, including Göran Marby, CEO of ICANN, David Kaye, UN Special Rapporteur on Freedom of Opinion and Expression and Vint Cerf, vice president and Chief Internet Evangelist at Google; were held as opportunities for accredited media to get in-depth perspectives from some of the IGF's high-level participants.

Highlights

Current and emerging digital policy issues of broad public interest were prominent at the IGF12. Developments around the world related to artificial intelligence, the role of artificial intelligence in disinformation, big data, the Internet of Things and virtual reality, put these issues at the forefront of the IGF agenda. As measured in number of dedicated sessions, they constituted the most popular sub-theme in the programme. Similarly, net neutrality and blockchain technologies, two topics which made headlines in the weeks leading up to the IGF, proved to be some of the best-attended sessions. The room for the [Dynamic Coalition on Blockchain Technologies](#) overflowed; the [National and Regional Initiatives (NRIs)](#) [Collaborative Session on Digital Currency and Blockchain Technology](#) broke the IGF's YouTube record, with more than 4,000 views registered as the session streamed live.

Thematic high-level sessions, hosted by the Government of Switzerland on the opening day and as a main session on Day 2, were held for the first time at the IGF in a public and participatory way. They put high-level leaders in conversation with one another and with the IGF's participants, bringing into focus views on the future of global Internet governance and the much-discussed issue of the impacts of digitisation on public trust and democracy.
Two sessions, one on Day 0 and the other held as a workshop on Day 2, moved forward discussions on a proposal from Microsoft for a **[Digital Geneva Convention on cybersecurity.](#)** The proposal aims to address the need for "new rules to protect and defend civilians against nation- sponsored attacks".

A Digital Geneva track within the IGF programme gathered 14 different open forums organised by international and intergovernmental bodies based in Geneva. They underscored the rapidly growing relevance of digital issues in the work of organisations with diverse policy interests and mandates, including humanitarian mandates, and the development of Geneva as a digital policy hub. UN Women, OHCHR, UNCTAD, the World Meteorological Organization (WMO), the World Intellectual Property Organization (WIPO), the International Trade Centre and the International Committee of the Red Cross were among the participating IGOs based in or with a presence in Geneva.
The African Union, the Council of Europe, the European Commission and European Parliament, the OECD, the Organization of American States, and UNICEF also held sessions, making it by far the IGF with the strongest participation from international organisations. It was also a record-breaking year for IGF sessions organised by governments, which included Afghanistan, Brazil, Cameroon, China, Cuba, Egypt, Germany, Indonesia, Israel, Latvia, Lebanon, Mexico, the Netherlands, Paraguay and the US.

Cybersecurity was again a high-profile topic. The many related sessions from Day 0 onward focused on cybersecurity capacity building, including in the context of the SDGs; exploring enhanced and more effective avenues for cooperation; and on preliminary steps for developing cybersecurity norms. Cybersecurity is also embracing more sectors, especially the Internet of Things.

The recent *[Call to Protect the Public Core of the Internet](#)* by the Global Commission on the Stability of Cyber Space was cited at different security related sessions on Day 0 and throughout the IGF.

The 2017 programme continued to feature **diverse human rights issues** such as privacy, data protection and blocking. This year also saw a specific focus on freedom of expression online in relation

to the predominance of "fake news". A vibrant digital rights session organised by NRIs emphasised the importance of access as a precondition to enjoying rights online and the equivalence of fundamental human rights with digital rights.

National, Regional (and Youth) IGFs (NRIs) have been emerging spontaneously ever since the IGF was convened. They are independent in their work, and organised in accordance with the core IGF principles of being multistakeholder, bottom-up, inclusive, open, transparent and non-commercial. Since the 10th IGF, the number of NRIs has grown rapidly and has more than doubled from 43 at the end of 2015 to a current record of 97 recognised NRIs. The NRIs are active and immensely useful contributors to the IGF community's intersessional activities. The linkages between the NRIs and the IGF have increased significantly, due to many joint work activities such as the organisation of sessions held during the 11th and now 12th IGF; work on organising collaborative sessions; developing publications containing guidelines and best practices on how to establish and run a successful NRI; and a publication that reflects the value of existing youth engagement at the IGF supported by the NRIs. Records from the NRIs regular fortnightly meetings also serve as valuable inputs to the global IGF.

In 2017, the IGF furthered its work on **Policy Options for Connecting and Enabling the Next Billion(s).** The intersessional initiative aimed at supplementing the recommendations made in Phase I and II with case studies to highlight how projects on the ground help to make progress in key sustainable development goals. CENB Phase III focused on three SDGs – Goal 4: Ensure inclusive and quality education for all and promote lifelong learning; Goal 5: Achieve gender equality and empower all women and girls; and Goal 9: Build resilient infrastructure, promote sustainable industrialisation and foster innovation. Meanwhile, the policy recommendations that came out of the CENB Phase I and II served as a starting point for the Best Practice Forum on Cybersecurity.

The **IGF Best Practice Forums (BPFs)** continue to offer unique platforms to investigate topical Internet policy challenges by collecting community input and experiences in a flexible and bottom-up manner. The BPFs gather knowledge from different groups, organisations, experts and individuals, which is made available as a resource for the broader community in the form of best practice outcome documents. The BPF processes create temporary platforms for people to discuss, interact and collaborate on one specific Internet governance issue. They foster interaction between existing stakeholders and stakeholder groups and community members from all geographic regions. Through their outreach efforts and continued calls for input and contributions, the BPFs have enabled more diverse and varied participation in IGF processes, including from a richer variety of regions and stakeholder groups. By continuously involving new people in their work, the BPFs have also contributed to enlarging the global footprint of the IGF. As a part of the 2017 community intersessional activities, the fourth cycle of BPFs focused on Cybersecurity, Gender and Access, and Local Content. BPFs worked throughout the year in an open and inclusive way via open mailing lists, regular virtual meetings and BPF workshops during the IGF12.

A total of 17 **IGF Dynamic Coalitions (DCs)**, two more than in 2016, worked throughout the year, independently, as multistakeholder expert discussion groups on a variety of topics. A majority of DCs presented issue papers for review to the IGF Community. While DCs date back to the first IGF meeting in Athens, their ongoing coordination effort since 2015 has continued to show significant progress toward synchronising DC work and adapting to fundamental common standards of transparency and inclusiveness (open archives, open membership, open mailing lists), culminating in a new main session for the DCs.

To help orient first-time participants to the IGF, the **Youth and Newcomers Track** launched on Day 0 and ran through the meeting with informal sessions focused on putting newcomers in conversation with Internet policy leaders from all stakeholder groups.

During the IGF workshop proposal process, proposers were invited to define their workshops with *thematic tags*, including write-in tags of their own choosing. As part of an approach to structuring the programme in a bottom-up way, the most popular tags were used to determine the programme of the 2017 meeting. Cybersecurity emerged as the most popular standalone tag. The Internet of Things, artificial intelligence and fake news were also frequently used.

After being successfully introduced last year as new session formats, 24 *lightning sessions* were selected for open-air talks. Taking place in a "boundary less" space in the IGF Village, the 20-minute talks allowed presenters to have informal engagement with participants. They were held on each day of the meeting during lunch breaks and covered a wide variety of topics such as algorithms, data transparency, smart cities and community networks.

[The IGF Village](#) included a record number of booths, with 55 exhibitors presenting their work, and gave exhibitors from across the stakeholder spectrum the opportunity to advance their work, network and create partnerships among the IGF's participants.

Art@IGF, an interdisciplinary exhibition of digital art, illustrated the interconnections between digital policy, digital art, media theory and technology.

Opening ceremony

The president of the Swiss Confederation, Doris Leuthard, noted the importance of the IGF: "It represents one of the major platforms allowing for a dialogue between all stakeholders which are inclusive, interactive and open." Remarking that the digital world is one which profoundly changes our environment, she underlined the importance of multistakeholder cooperation and dialogue for creating an information society with people at its heart.

Through a video message, the UN secretary-general António Guterres called for a people-centred Internet which must serve to improve the human condition, by ''breaking divides based on locality, means, and gender''.

UN under-secretary-general, Liu Zhenmin, underlined the importance and relevance of the IGF. He said the IGF has made crucial contributions to public policy on Internet. "I believe the outcomes of the IGF community's work will be a valuable contribution toward the SDGs and a more inclusive and sustainable digital future for all."

The director general of the UN Office in Geneva, Michael Møller, spoke about how an integration of all stakeholders is necessary. "The new digital world will need to be people centred and inclusive, combining all stakeholders… making it the place to develop the regulatory frameworks needed; flexible enough to information to prosper, but protective enough to protect the social cohesion of our society. This is the value of the IGF and it is also your challenge in the next few days."

"'ICTs have transformed people's live around the world, and they have a critical role to play in helping to achieve the 20th century Agenda for Sustainable Development," said ITU secretary-general, Houlin Zhao, while expressing his support to the open and inclusive discussion platform.

Assistant director-general of UNESCO, Frank La Rue, noted that "full access to information means a free Internet, an open Internet, an accessible Internet, an Internet that serves the building of knowledge societies for everyone, and it does not represent danger for anyone. This is our challenge: how to make Internet an instrument of development and an instrument of peace."

Pierre Maudet, Geneva state councillor, noted that the Internet needs to be based on solidarity. ''In order to shape our digital future, we not only need to master the tools, but we also need to have confidence in our tools and in the partners that we are going to work with to build our future."

The mayor of Geneva, Rémy Pagani, said that the existing digital divide between the developed and developing countries has to be closed, and we need to guarantee equal access to the Internet for all.

MAIN SESSION REPORTS

The following reports are presented:

- High-level session – shaping our future digital global governance(16)

- Local Interventions, global impacts: How can international, multistakeholder cooperation address Internet disruptions, encryption and data flows(17)

- Empowering global cooperation on cybersecurity for sustainable development and peace(18)

- The impact of digitisation on politics, public trust, and democracy(19)

- Dynamic Coalitions: Contribute to the digital future!(20)

- Gender inclusion and the future of the Internet(22)

- NRIs Perspectives – Rights in the digital world(24)

- Digital transformation: How do we shape its socioeconomic and labour impacts for good?(26)

- Special session: Data for sustainable development road maps(28)

High-level session- shaping our future digital global governance

This high-level session covered the overall "shaping the future" theme of IGF12.

Digitisation provides unique opportunities for innovation, growth and development. But in recent times, the Internet has also been associated with growing challenges that call for a better coordinated global digital governance system. Pooling the strengths of stakeholders – governments, private sector, technical community and civil society – is essential in any such effort.

The session covered the pressing matters relating to digitisation and the evolution of the global digital governance framework. Potential gaps in governance should be part of the conversation and suggestions for improving global cooperation among all stakeholders can be developed. Panellists shared their visions for global digital governance, discussed challenges, identified opportunities, and reflected on roles and responsibilities of different users.

Geneva/session messages

- There was broad support for the notion that as the Internet and digital technologies continue to evolve, better coordinated digital governance systems are needed to maximise the opportunities offered by these technologies and address the challenges they bring. What such systems could or should look like, and what they should focus on, remains up for discussion.

- That effective digital governance adapts and responds to the needs of the global citizens was shared by all participants. But what are those needs? Some highlighted as priority areas bridging the digital divide (in its multiple dimensions), fostering digital literacy, and supporting the development of the digital economy. Others stressed that governance structures need to focus on enhancing confidence and trust in digital technologies, ensuring security, and creating stability and predictability in cyberspace.

- The notion that the ideal future digital global governance should be value-based, inclusive, open, and transparent gained traction along the debate. While it is challenging to determine values that can be shared by all stakeholder groups, and at a global level, there was common ground in the thought that core Internet values are and need to stay human-centred.

- When it comes to the governance model, there was broad support for the multistakeholder approach, and a more active involvement of all stakeholders in identifying and implementing consensus-based solutions for digital policy issues. It was underlined that the challenges of the digital world also need to be addressed by governments and intergovernmental organisations, through laws and regulation.

- On the suitability of an international treaty or convention to address challenges such as cybercrime and cybersecurity, some expressed the view that it might be too early to consider such an option – without excluding it as an option for the future - while others considered that an intergovernmental treaty is not an adequate solution to tackle challenges that affect all stakeholders, and for which all stakeholders should have roles and responsibilities.

- The IGF, as a multistakeholder and inclusive process, was broadly supported as an important platform that allows stakeholders to reflect critically on existing digital governance processes, and contribute to the shaping of future processes.

Local Interventions, global impacts: How can international, multistakeholder cooperation address Internet disruptions, encryption and data flows

This main session addressed a growing concern – that the rapid growth and pace of innovation of new technologies have outpaced traditional regulatory models and may prompt unilateral local actions that threaten the open, stable and interconnected nature of the Internet. Multistakeholder dialogue can help find the least intrusive methods of safeguarding recognised local interest, while maintaining a safe, secure and resilient global network that fosters socioeconomic development and innovation.

The session discussed the impacts that national policy initiatives may have on the global Internet environment and the jurisdictional issues still to be solved. The discussion with experts focused on three different but interrelated topics: Internet disruptions, encryption and data flows. This main session provided an opportunity for workshops at the 2017 IGF to feed into the debate.

The discussion with all stakeholders gave insight on the global cooperation that is necessary for the Internet to improve human rights, peace and wellbeing; and on the aggregate effects that Internet disruptions, encryption and data flows might have on the achievement of the SDGs.

Geneva/session messages

- While there is increasing awareness of potential unintended impacts of Internet shutdowns, they continue to happen around the world. Shutdowns may affect the exercise of human rights, have economic implications, and may lead to the fragmentation of the Internet (as they often have cross-border effects).

- The motivations behind Internet shutdowns vary, they may be legitimate, but sometimes blocking is used to address problems that could be solved by using the Internet. It is important to have a process in place that ensures transparency, adequate oversight, and redress mechanisms.

- Encryption helps promote public security and allows better protection of human rights (such as those of activists, journalists and minorities). It should not be seen as a default security threat. Countries that consider bans on encryption should understand the limitations and impacts of such a ban (e.g. cross-border effects, undermining the security of citizens, challenging the human rights of groups or minorities, and determining companies to move to other jurisdictions where such bans are not in place). Tools developed or employed to undermine encryption can come into the hands of those with illegal or criminal purposes. Governments and industry should cooperate and identify vulnerabilities in encryption/encrypted products and should be reported to the vendors.

- Stakeholders should work together on achieving an appropriate balance between the interests of citizens and entities to secure their data and the needs of law enforcement agencies, while not undermining the fundamentals of the technology.

- Data is an important asset in the digital era, due to its multiple uses. As governments and private companies collect and process large amounts of data, there is a need for more transparency and accountability in these processes. Users should be educated on how their data may be used and how to protect it.

- The digital economy depends on the free flow of data, but this should be balanced with data protection. Governments, private companies, and civil society should work together on basic sets of rules that allow data aggregation and data flows, while also protecting the integrity of data and the privacy of individuals.

Empowering global cooperation on cybersecurity for sustainable development and peace

Global cybersecurity issues have underscored the urgent need for a renewed multistakeholder dialogue on the security of cyberspace for peace and sustainable development. Achievement of the UN 2030 Agenda for Sustainable development and its SDGs would be under threat if actors decline to shape into global actions, commitments and ideas on global cooperation on cybersecurity and preservation of the stability of the Internet.

The session contributed to establishing a global multistakeholder dialogue on cybersecurity. Various institutional frameworks for dealing with cooperation on cybersecurity are in place, but tend to operate in silos, missing the opportunity of a global course of action. Building on the outcomes of the IGF 2015 and 2016 main sessions on cybersecurity, and on the work of the IGF12 Best Practice Forum on cybersecurity, this session proposed actions to empower global cooperation on cybersecurity for sustainable development and peace.

Geneva/session messages

- Cybersecurity and the preservation of a secure and reliable cyberspace are essential elements in the road towards sustainable development. However, countries have different levels of preparedness to deal with cyber threats and cyber risks, and more efforts need to be focused on capacity building measures. It is important for countries to have institutions, strategies, and policies in place to tackle cybersecurity issues, but capacity development should also focus on individuals.

- Cybersecurity cannot be achieved by one stakeholder group on its own, and all stakeholders have roles and responsibilities. As siloed approaches can lead to ineffective and counterproductive measures, multistakeholder cooperation needs to be reinforced. Such cooperation carries challenges, one of them being related to the fact that there is no universally agreed definition on the notion of cybersecurity. Hence, a global culture of cybersecurity is needed, to enhance mutual understanding among stakeholders on what, when, how can be done to ensure an open, secure, stable, and accessible cyberspace.

- While there is broad agreement that international law applies to cyberspace, calls were made for more efforts to clarify how it applies, and to identify whether there are areas where there might be gaps that international law does not cover.

- Cyberspace needs to be a place for peace, stability, and prosperity. Avoiding the militarisation of cyberspace and ensuring that states do not engage in a cyber arms race were seen as important elements in this regard. For some, this can best be achieved through international cooperation among states, in the framework of the UN.

- Many agreed that existing norms related to responsible state behaviour in cyberspace – although not binding – can significantly contribute to enhancing cybersecurity and stability. Calls were made for more awareness raising about these norms, and more efforts to enhance their voluntary implementation.

- While some called for new international treaties or convention to encode rules, norms, and principles for cybersecurity and responsible state behaviour, others suggested an intermediary step to identify what could be the mechanisms that would allow meaningful engagement of all stakeholders in the development of rules. Moreover, if a treaty is adopted, the question remains on how to make sure that it is actually implemented, considering that it is not even clear how existing international law applies to the use of digital technologies by states.

The impact of digitisation on politics, public trust, and democracy

The digital space, as a cornerstone of the public policy space, can be a great enabler for democratic discourse and participation, as well as inclusive policymaking. At the same time, the misuse of the digital public policy space can lead to the distortion of truth, mistrust in public information, and misrepresentation of public opinion.

The high-level session discussed the opportunities and challenges that digitisation brings to the digital policy sphere, public trust and democracy, addressed the roles and responsibilities of stakeholders, and covered a wide range of issues such as the use of digital tools for more inclusive policymaking; fake and false news to influence political processes and the responsibilities of internet intermediaries as disseminators; and rebuilding trust among users. It further looked into whether and how digital literacy, education, and awareness-raising could be the key towards empowering citizens not only to take advantage of digital tools, but also to deal with the challenges related to the misuse of the digital public space.

Geneva/session messages

- Digitisation can empower citizens, strengthen institutions, and promote more inclusive democratic participation and policy making. But it can also lead to information disorder, public mistrust, and the manipulation of public opinion. There was broad support for the idea that we should avoid over- focusing on the risks, and rather put emphasis on maximising the positive aspects of digitisation.

- Trust in public institutions and policymaking processes remains a matter of concern, and digitisation can act both as a solution and as a threat. Many emphasised that core principles – such as accountability, transparency, legitimacy, and openness – are needed to consolidate or restore trust. Digital technologies can help put these principles into practice.

- Fake news continues to be in focus, but many noted that the term is confusing, and 'disinformation' or 'misinformation' could be used instead. While the phenomenon is not new, it now has a wider effect due to digital technologies. There were diverse views on the roles and responsibilities of stakeholders. Some noted that governments are mainly responsible, and should invest in education and media literacy, instead of building new institutions and policies. Governments were called upon to abstain from content regulation and censorship. Some were in favour of intermediary responsibility and the need for regulation in this regard, while others argued that platforms cannot be solely responsible for countering misinformation.
- There was general agreement on the crucial role that education and literacy have in equipping individuals with a critical mind, and the ability to make informed choices and distinguish trustworthy information from misinformation and/or manipulation.
- While acknowledging the importance of education, several other remedies were proposed for addressing the challenges of misinformation in the digital space: strengthening quality journalism, rebalancing the relation between traditional and new media, fact checking, and providing alternative positive stories.
- Finally, it was broadly agreed that multistakeholder cooperation is key in making sure that we, as a society, use the digital space to the best of our abilities. While the digital future is characterised by uncertainties, and facing the unknown is a challenge, relying on long-term principles (such as accountability and transparency) combined with having flexibility in implementing and finding tailor-made solutions to face new challenges would be the most appropriate way forward.

This session focused on the opportunities and challenges that digitisation brings to the digital political sphere, public trust, and democracy. A briefing note prepared by the Geneva Internet Platform for the session is available here.

Dynamic Coalitions: Contribute to the digital future!

Dynamic Coalitions (DCs) are the IGF's longest-standing community groups that work on a certain Internet governance theme during and between the IGFs. There are now 17 DCs whose work has evolved to encompass a range of activities and outputs.[1]

Building on their main session held in 2016, DCs agreed to come together again at IGF12 to discuss the topics they cover.

Geneva/session messages

- The digital divide remains a concern around the world and it requires actions in multiple areas, from building infrastructures, to empowering individuals and communities to make meaningful use of the Internet. Community networks are an example of such a multidisciplinary approach: the building of physical infrastructures is complemented by empowering communities to benefit from digital opportunities. Public libraries also have an important role to play in improving access, especially in developing countries.

- The principle of universal design in the development of technologies should be seen as a requirement for enhancing accessibility, including for persons with disabilities. Measures are implemented around the world, and it is important to collect data about what works and what does not, to inform policy making.

- Internet rights, principles, and values span across multiple dimensions. Core Internet values are of a technical nature and refer to the Internet as a global, interoperable, open, decentralised, user-centric, robust, and reliable network. Beyond these values, human rights need to be protected online. For example, privacy and data protection rights remain a major concern, and principles such as privacy-by-design and consent-by-design could contribute to better preserving them. Children and gender rights are also important, and their implementation requires both digital literacy and protection from online harm and violence.

- Content control policies that platforms implement at the request of governments could challenge human rights. To avoid platforms becoming regulators, solutions could include co-regulation and self-regulation, with governments maintaining an adequate supervision of the processes. With regard to net neutrality and zero-rating, it was pointed out that different practices and policies exist around the world, and it seems as if zero-rating plans are more common in countries without net neutrality regulations, while other services seem to be zero-rated at a global level.

- As technologies continue to develop, new challenges need to be addressed. Blockchain can improve the security of data and the stability of systems, but it also raises questions of jurisdiction and governance. In the case of the Internet of Things, developing an accountability and transparency framework is needed to guide its evolution in a responsible manner. Transparency is also important in the context of international trade negotiations, as governments need to keep citizens informed and allow them to contribute comments in the drafting processes.

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1. This video on www.youtube.com, or enable JavaScript if it is disabled in your browser.</div></div>

This session covered material presented in the separate session for each DC that met at IGF12, and there are reports and links to material in the theme sections. The DC's reporting at this main session were:

- Accessibility and disability
- Blockchain technologies
- Child online safety
- Core Internet values
- Gender and Internet governance
- Innovative approaches to connecting the unconnected
- Internet of Things
- Net neutrality
- Platform responsibility
- Public access in libraries
- Trade.

A new DC was founded at IGF12 – see Founding Meeting of a Dynamic Coalition on Schools of Internet Governance – and here for its plans.

Gender inclusion and the future of the Internet

This session was the first time that gender had been featured in a main session at the IGF, as Bishakha Datta (Gender Dynamic Coalition, India) highlighted.

SDG Goal 5 covers a range of targets related to gender equality and empowerment of women and girls and cites ICTs as an important area for policy development, and so provides an opportunity and impetus to consider gender in current developments that will impact on the future of the Internet.

This main session focused on key issues related to gender and Internet policy, and sparked discussion on improvements to Internet governance processes, mechanisms and structures to better integrate gender equality.

Geneva/session messages

- There was strong recognition of the significance of the first main session on gender at the IGF, and the importance of addressing gender as both integral and cross-cutting. Gender should be understood through the lens diversity, demographics, economic power, sexual orientation and gender identities. Special attention should be given to groups such as rural women, girls, women in refugee camps, LGBTQI).

- The gender digital divide manifests in multiple dimensions. Efforts to enable women and girls to access digital technologies need to be complemented with digital literacy, enabling meaningful use of technologies, encouraging them to prepare for jobs in technology fields, enabling them to create content that is relevant and valuable to their lives and contexts, and empowering them to contribute to Internet governance and digital policy processes. Gender equality is also about culture and norms, and stereotypes should be fought against through education and awareness.

- The digital divide facilitates discrimination against women and girls and so is a human rights issue that countries should address in line with international human rights frameworks.

- Several speakers stated that technology is not neutral, and that gender diversity should be taken into account when technologies are designed. They warned about the potential impact of data-driven technologies on gender digital rights, and called for multistakeholder action to avoid opaque algorithms and machine learning systems that make gender-biased decisions.

- The issue of online gender-based abuse and violence was highlighted as an ongoing challenge. Some warned that states and Internet intermediaries, when tackling online gender-based abuse and violence should not do so through a protectionist framework, but through the framework of human rights. This includes the need to balance different rights, and that the principles of necessity, proportionality and transparency should be respected in so far as they limit freedom of expression.

- The important role played by civil society actors in developing research and coordinating collaboration to understand key and emerging gender-related issues was acknowledged, and policymakers were encouraged to engage and be part of honest conversations to develop not only policies but coordinated plans to achieve concrete results. Many acknowledged the progress made in recent years to integrate women rights and the gender issues into Internet governance processes, mechanisms, and structures (including the IGF). Yet, it was felt that gender equality and inclusion should remain a priority area. A multistakeholder approach was underlined as an important model and approach in this.

The session was organised in segments in key issues and challenges, frameworks for engaging with gender and Internet policy, innovation, new and emerging technologies, and gender inclusion and Internet governance. A compilation of tweets from the session is available here.

NRIs Perspectives – Rights in the digital world

NRIs Perspectives – Rights in the digital world (2nd section)

Throughout the year, at their own annual meetings, a number of the National, Regional and Youth IGFs (NRIs) have been extensively discussing the notion of rights in the digital world. These exchanges produced a rich variety of views and practices from different national and regional contexts, as well as different observations on the impact and potential impact of global digital rights policies and practices on the national, regional or subregional communities. The NRIs main session (which took place over two parts) served as a global platform to identify commonalities, discuss differences, exchange experiences and showcase best practices, fed by multistakeholder discussions on rights in the digital world.

Geneva/session messages

• There was broad support for the view that the rights people have offline should also be protected online. Rights such as privacy, data protection and freedom of expression are equally important in the digital space as they are in the physical world. Some pointed out that there might not be a uniform understanding of these rights and that the application of rights might vary from country to country.

• While for some access to the Internet should be considered as a human right, others noted that access is more a need than a right. It was generally supported that access to the Internet is an important enabler of development and growth. For this reason, many noted that more should be done to bridge the digital divide.

• Many indicated that the Internet enables them to exercise their digital rights, and called for more education, digital literacy, and for raising awareness about digital rights, and ways to exercise and protect them.

• Some recommended that the protection of digital rights should be embedded in an inclusive approach that also considers the needs and rights of vulnerable groups and communities – such as children, women, gender minorities, people with disabilities.

• Other challenges and limitations mentioned during the session were: Internet shutdowns; limited transparency in how some Internet intermediaries process personal data or deal with content control policies; individual self-censorship caused by activities such as surveillance; tendencies to trade off rights against each other; and the lack of effective legal frameworks at national level, or insufficient resources to implement them.

• New data-driven technologies such as the Internet of things and artificial intelligence were expected to have both positive and negative impacts on human rights. Suggested solutions to maximise the opportunities and minimise the risks included the adoption of standards and principles on issues such as security and privacy, ethics, and accountability.

• There was a broad confidence that multistakeholder processes could be effective in addressing challenges related to digital rights. It was noted that more efforts should be made to strengthen the engagement of stakeholders, and empower them to make meaningful contributions.
Participants from the NRIs addressed five policy questions:

1. How do the NRIs communities understand rights in the digital world?

2. From the perspective of your NRI, what are our rights in the digital world and do you see the access as one of those?

3. Are there any challenges and limitations in exercising our rights in the digital world, according to the views of your NRI?

4. How is the development of new technologies affecting our rights in the digital world, from the perspective of your NRI?

5. What are the recommendations/advices from your NRIs in approaching the problems? Can the multistakeholder model be an effective approach for making improvements?

Digital transformation: How do we shape its socioeconomic and labour impacts for good?

The background to this session is that during the 11th annual meeting of the IGF in Mexico, International Chamber of Commerce, Business Action to Support the Information Society (ICC BASIS) organised a workshop titled "Digital economy and the future of work". Following the workshop, the business community agreed that holding a main session on ICT and employment to follow up the workshop would be a good opportunity to further foster engagement among multistakeholders and have in-depth discussions on digital economy issues, while exploring how for many of the developing countries, technology is creating new jobs and for others with declining demographics, technology is helping with productivity.

A key issue is that cross-border data flows have accelerated economic globalisation while the flows of international trade and finance have flattened. The digitisation of products that were traditionally delivered physically but can also be transmitted electronically over the Internet plays an important role in this process, opening new possibilities for e-commerce, and is an essential part of achieving the SDGs. The session provided a dialogue on the process of digitisation and digital transformation, examining its effect on the global value chain, new business models, and the future workforce.

Data flows will further increase as the Internet of Things (IoT) becomes pervasive. Meanwhile data analytics, machine learning, and artificial intelligence (AI) are fundamental to the transformation of both developed and developing economies. Under the "sharing economy", digital platforms enable direct exchanges between service providers and potential customers, and reshape organisations and the future of the work, necessitating a dialogue about how to enable an inclusive digital transformation which benefits everyone.

Geneva/session messages

- The underlying message was that digitisation brings benefits to society and advance growth and development, but also comes with challenges. To reap these benefits and ensure that no one is left behind, actions are needed to ensure access to digital infrastructures and technologies, develop the capacities of individuals and companies to use digital technologies, and put policies in place to support innovation and growth.

- E-commerce is an enabler of global trade, empowering enterprises to reach international markets. But barriers still exist. Some participants said that we are at a historically important turning point with a need to update cross-border trade rules and procedures, to better cater for the digital era. Others cautioned that time is needed to reach consensus between countries on how to best address the challenges of the digital trade. There were also calls for tackling issues such as limitations on cross-border data flows, such as data privacy and security concerns.

- Some discussants noted that automation and AI offer new avenues for development, and it is important to ensure that societies are able to adapt and take advantage of the opportunities. Other focused on the need to address risks associated with such technologies, from bias and imbalances in algorithmic decision making, to disruptions on the labour market and workforce.

- Some argued that societies and individuals will be able to adapt to the changes brought by new technologies, as was the case with previous industrial revolutions. While some jobs may become obsolete, technologies could develop new services, and create new markets and jobs. Others warned that the digital revolution risks leading to profound occupational changes, gaps in social protections, and workers' rights abuses. Among the proposed solutions were digital inclusion, active market labour

policies, social protection and social safety nets, and adequate legislation to regulate the behaviour of companies.

- There was support for the view that education and capacity development especially for children, youth, and women are key to ensure that the future workforce has the skills required by the new economy. Calls were made for changes in curricula and learning processes to allow individuals not only to make use of new technologies, but also to be able to challenge them.

- While it cannot be predicted how our digital future will look like, it was said that we should take a human-centric and ethics-based approach to digital development

Special session: Data for sustainable development road maps

At the time of this special session, the start of the implementation of the 17 UN SDGs was only 2 weeks away, and there is a need for data that tracks and determines whether a country or the UN will achieve or miss an SDG and its targets. Creating a form of standardised reporting is very challenging for developing countries – †he least developed nations in Asia and Africa lack sufficient data to be used by business and policymakers in making estimates. There is a pressing need for a data "road-map" to help these countries measure SDG progress.

Among the issues explored in the session were:

• Addressing data gaps and financing
• Encouraging data use
• Strengthening the data ecosystem and improving systems
• Developing the policy and enabling environment.

THEME REPORTS

The following section comprises an introduction and summaries of workshops and other sessions for each of the eight themes at IGF12:

ACCESS, INCLUSION AND DIVERSITY

This theme is a backbone to the IGF and crosses over into other themes, particularly gender and youth, and digital economy, but also human rights and multistakeholder cooperation and governance.

In 2017, the IGF furthered its work on Policy Options for Connecting and Enabling the Next Billion(s). The intersessional initiative aimed at supplementing the recommendations made in Phase I and II with case studies to highlight how projects on the ground help to make progress in key sustainable development goals. CENB Phase III has focused on three SDGs – Goal 4: Ensure inclusive and quality education for all and promote lifelong learning; Goal 5: Achieve gender equality and empower all women and girls; and Goal 9: Build resilient infrastructure, promote sustainable industrialisation and foster innovation. A workshop – Connecting and Enabling the Next Billion – CENB III – gave an update on this phase of the work.

Access, inclusion and diversity come to life in the many IGF National and Regional Initiatives (NRIs) and Best Practice Forums (BPFs). For example, see below for a report from NRIs collaborative session: Access and existing barriers on national and regional levels.

Several workshops also addressed the inclusion and digital future main theme of IGF12. Let the people speak: Using evidence from the Global South to reshape our digital future and Equipping populations with the skills to shape and secure their digital future. The latter highlighted that digital skills that are required depend on context and might be different between companies, countries and communities. Properly managing this challenge requires cooperation between stakeholders. Internet access is only meaningful when people know how to use it and, with digital skills, previously marginalised communities can be integrated into society and the labour market. The discussions also pointed out that education is not only for children, and should be lifelong.

A number of IGF Dynamic Coalitions (DCs) direct their output to access, inclusion and diversity.

- The meeting of the Dynamic Coalition on Innovative Approaches to Connecting the Unconnected, which disseminates information about innovative technological and business practices that help provide last mile connectivity and explores supply and demand side drivers of adoption in unconnected communities, has an ongoing project to interviews with case studies, and participants heard that 120 interviews from a catalogue of some 750 case study candidates had been completed.
- The Dynamic Coalition on Net Neutrality (DCNN) began with a presentation on the DC's Zero Rating Map, a tool for gathering information on zero rating plans and net neutrality frameworks around the world.

- The Dynamic Coalition on Accessibility and Disability (DCAD) looked at the accessibility if the IGF, noting the need to improve the accessibility of remote participation (the workshop Universal design and creating an accessible global digital future also covered this issue).

- The Dynamic Coalition – Public Access in Libraries looked in particular at the role that libraries play in providing access to information to people with disabilities.

Among the messages reported by the DCs at their main session were:

- The digital divide remains a concern around the world and it requires actions in multiple areas, from building infrastructures, to empowering individuals and communities to make meaningful use of the Internet. Community networks are an example of such a multidisciplinary approach: the building of physical infrastructures is complemented by empowering communities to benefit from

digital opportunities. Public libraries also have an important role to play in improving access, especially in developing countries (note that community networks also feature in the critical infrastructure theme at the IGF).

- The principle of universal design in the development of technologies should be seen as a requirement for enhancing accessibility, including for persons with disabilities. Measures are implemented around the world, and it is important to collect data about what works and what does not, to inform policy making.

Gender was particularly emphasised at IGF12, not least from the access and inclusion aspects. A highlight was the main session, Gender Inclusion and the Future of the Internet , the first time gender has been positioned in such a prominent position at the IGF (see also the gender and youth theme). There are often barriers to access for digital technologies for women, and some of these barriers relate to digital literacy. There are various ongoing initiatives to break these barriers, such as through government-led digital literacy programmes, for example in Mexico and India. Women in various contexts have different needs for digital skills, and it is important to take these into account and navigate cultural constraints. This challenge could be mitigated by appointing local champions in communities, so that interventions can be created with the cultural specificities in mind.

An important workshop was Tackling gender divides: ICT and women's economic empowerment. It covered a lot of ground on inclusion for women in ICT and concluded that challenging traditional gender norms is essential. The Best Practice Forum (BPF) on Gender and Access carried out survey work on sub-groups in 2017 – women with disabilities, refugee women, young women, older women, LGBTQI women, women in rural areas, and indigenous women.

Another important workshop focused on disability. The Internet of Things and accessibility for people with disability brought together experts from the private sector, civil society, technical community and international organisations to discuss how policy, standards and innovative design can help to ensure that the Internet of Things (IoT) is inclusive of all parts of the community.

Another BPF was the Best Practice Forum on Local Content – at the IGF, the organiser of the workshop "Local content: An opportunity for underserved regions and the BPF on local content" agreed to hold its meeting during a shared time-slot with the BPF to allow for cross-fertilisation and a richer discussion.
A workshop on Internet shutdowns – Assessing implications of Internet shutdowns according to Internet governance principles – was wide ranging and complemented a session on shutdowns in Africa in the digital economy theme Workshop – Internet shutdowns: Taking a toll on Africa's Internet economy and shutdowns were also highlighted in the main session, Local Interventions, global impacts: How can international, multistakeholder cooperation address Internet disruptions, encryption and data flows.

CRITICAL INTERNET RESOURCES

At the IGF, this theme has been mainly about the technical building blocks of networks and the Internet, but at IGF12 the meeting organisers broadened the scope to include the meeting of the Dynamic Coalition on Core Internet Values (DC-CIV) – as the Internet values set out by the DC are fundamental to the way the Internet should work.

In the DC meeting, a discussion paper, "Focus on freedom from harm", was to the fore. It serves as an important "benchmark" for values, which have so far been defined as:

- Global – The Internet is a global medium open to all, regardless of geography or nationality.

- Interoperable – Interoperability is the ability of a computer system to run application programs from different vendors, and to interact with other computers across local or wide-area networks regardless of their physical architecture and operating systems. Interoperability is feasible through hardware and software components that conform to open standards such as those used for internet.

- Open – As a network of networks, any standards-compliant device, network, service, application, or type of data (video, audio, text, etc.) is allowed on the Internet, and the Internet's core architecture is based on open standards.

- Decentralised – The Internet is free of any centralised control.

- End-to-end – Application-specific features reside in the communicating end nodes of the network rather than in intermediary nodes, such as gateways, that exist to establish the network.

- User-centric – End users maintain full control over the type of information, application, and service they want to share and access.
- Robust and reliable – While respecting best-effort scenarios for traffic management, the interconnected nature of the Internet and its dense mesh of networks peering with each other have made it robust and reliable.

Another DC, the Dynamic Coalition on Community Connectivity (DC3), gathered authors of the book, "Community Networks: the Internet by the People for the People", which was the 2017 outcome of the coalition, and available here. The authors discussed case studies and proposals about policies that would promote community networking. The book includes an updated version of the Declaration on Community Connectivity, which was elaborated through a multistakeholder participatory process, facilitated by DC3.

Also on the community level, the workshop Two networks will shape your digital future was about the interdependency of Internet access and electricity networks for people in rural areas in developing countries. Panellists recognised the need for simultaneous consideration of multiple critical infrastructures for more rapid deployment of advanced infrastructure for energy, the Internet, and also finance/payment systems. The importance of standards and decentralised microgrid systems were highlighted.

A major workshop session was The future of Internet governance: submarine cables and global inter-connectivity – this raised the economic and human rights impacts of additional submarine cables on Internet affordability in Latin American and BRIC countries, transparency of pricing policy of cables, and the relationship with Internet shutdowns and mass surveillance. Also on infrastructure were two sessions concerning IPv6 – NRI collaborative session: Working together at national-regional

level to encourage IPv6 deployment and How can we limit the negative impact of carrier grade NAT technologies and boost IPv6 adoption?

Again, in a broader interpretation of what can be considered critical resources, also included in this theme were sessions on the emerging underpinning role played by Internet platforms, in the workshop Beyond the next gig: Unpacking development, rights and economic futures in the age of platforms and in State-led interference in encrypted systems: A public debate on different policy approaches, a topic with crossover with cybersecurity and human rights.

A session that asked whether it is appropriate for organisations that manage the Internet, such as ICAAN, to also regulate content was a workshop titled Content regulation and private ordering at Internet governance institutions. Most stakeholders believe that ICANN's authority to coordinate and make policy for the DNS should not be used to make ICANN a content regulator on the Internet, but some interest groups have put pressure on ICANN to use its power over domains to become an Internet regulator.

CYBERSECURITY

Since the inception of the IGF, cybersecurity has been one of the key areas of concern and discussions, with stakeholders expressing grave concerns about the future of the Internet, and its value for development, peace and preservation of our mutual interests in cyberspace. The 2030 Agenda for Sustainable Development could be under serious threat if global actors decline to shape various commitments and ideas on cooperation on cybersecurity and preservation of the stability of the Internet into actions.

The main session at IGF12, Empowering global cooperation on cybersecurity for sustainable development and peace contributed to the aim of establishing global multistakeholder dialogue on cybersecurity. Various institutional frameworks for dealing with cooperation on cybersecurity are in place, but tend to operate in silos, missing the opportunity of a global course of action. Messages from the session included:

- Cybersecurity and the preservation of a secure and reliable cyberspace are essential elements in the road towards sustainable development. However, countries have different levels of preparedness to deal with cyber threats and cyber risks, and more efforts need to be focused on capacity building measures. It is important for countries to have institutions, strategies, and policies in place to tackle cybersecurity issues, but capacity development should also focus on individuals.
- Cybersecurity cannot be achieved by one stakeholder group on its own, and all stakeholders have roles and responsibilities. As siloed approaches can lead to ineffective and counterproductive measures, multistakeholder cooperation needs to be reinforced. Such cooperation carries challenges, one of them being related to the fact that there is no universally agreed definition on the notion of cybersecurity. Hence, a global culture of cybersecurity is needed, to enhance mutual understanding among stakeholders on what, when, how can be done to ensure an open, secure, stable, and accessible cyberspace.
- While there is broad agreement that international law applies to cyberspace, calls were made for more efforts to clarify how it applies, and to identify whether there are areas where there might be gaps that international law does not cover.
- Cyberspace needs to be a place for peace, stability, and prosperity. Avoiding the militarisation of cyberspace and ensuring that states do not engage in a cyber arms race were seen as important elements in this regard. For some, this can best be achieved through international cooperation among states, in the framework of the UN.

A key session was the Best Practice Forum (BPF) on Cybersecurity, which focused on two policy areas: safe and reliable access/securing shared critical services, and preventing collected information from being reused for inappropriate purposes/protecting against potential abuse by authorities. See the report below.

Much of the current debate on cybersecurity was encapsulated in the workshop, Cybersecurity: Balancing security, openness and privacy, which stressed that we are trying to juggles three topics: security, openness and privacy, and the question, "How do we reconcile efforts by the law enforcement agencies and data privacy advocates?" was explored here as in several other sessions at IGF12.

Important planks of cybersecurity discussed at the IGF included crime, terrorism and jurisdiction, such as in the workshops Legal challenges in cloud forensics and cross-border criminal and counterterrorism investigations, which focused on efforts at the UN and EUROPOL to remove extremist content online, and Terrorism: security vs freedom?, which led to a multistakeholder discussion on terrorism and how each stakeholder responds to terrorist attacks in the online environment. In particular, the panellists focused on the effects on the rule of law, privacy and freedom of expression.

Another workshop, [Crime and jurisdiction in cyberspace: Towards solutions,](#) started with the statement that conflicts may arise between different national legislations, resulting in uncertainty and legal discrepancies for authorities and industry. Frustration among law enforcement authorities is spreading, and costs as a consequence of the shutdown of applications and sites are more than considerable. In discussion, it was reiterated that technological developments should never pose an insurmountable impediment to law enforcement and international cooperation. The existence of a community of trust between different players and partners in the joint fight against cybercrime is the ultimate challenge and objective, while ensuring and strengthening established safeguards.

A workshop moved forward discussions on a proposal from Microsoft for a Digital Geneva Convention on cybersecurity. The proposal aims to address the need for new rules to protect and defend civilians against nation-sponsored attacks. See [A Digital Geneva Convention to protect cyberspace](#) and report below.

That cybersecurity is a major and complex theme was also reflected in further sessions, on improving incident response, capacity building and a debate on whether governments should be able to hack devices. Not least, it was reiterated in several sessions that cybersecurity is crucial for developing countries and their digital strategies and for achieving the SDGs, backing up the main session messages.

DIGITAL ECONOMY, DIGITAL WORK, TRADE AND SUSTAINABLE DEVELOPMENT

The digital economy was a major theme at IGF12. It featured particularly in the main session Digital transformation: How do we shape its socioeconomic and labour impacts for good? where it was highlighted that cross-border data flows have accelerated economic globalisation, with digitisation of products that were traditionally delivered physically but can also be transmitted electronically playing an important role in new possibilities for e-commerce, and an essential part of achieving the Sustainable Development Goals (SDGs).

In the near future, data flows will increase with the Internet of Things (IoT) and data analytics, machine learning, and artificial intelligence (AI) will be fundamental to the transformation of both developed and developing economies. In the "sharing economy", digital platforms enable exchanges between service providers and customers, and are reshaping organisations and the future of the work. The need is for dialogue about how to enable an inclusive digital transformation which benefits everyone.

Participants heard that to reap the benefits and ensure that no one is left behind, actions are needed in to ensure access to digital infrastructures and technologies, develop the capacities of people and companies to use digital technologies, and putting policies in place to support innovation and growth. It was said that the world is at important turning point in needing to update cross-border trade rules and procedures to better cater for the digital era, and to address data privacy and security concerns, and also the challenges posed by AI.

While some jobs may become obsolete, technologies could develop new services, and create new markets and jobs but the digital revolution risks leading to profound occupational changes, gaps in social protections, and attacks on workers' rights. Among the proposed solutions were digital inclusion, labour market policies, social safety nets, and adequate legislation to regulate the behaviour of companies. Developing digital literacy and capacity especially for young people and women are critical for the digital economy, points made also in other meetings and themes at IGF12.

The Inaugural meeting of the Dynamic Coalition on Trade and the Internet took place at IGF12 (see report below). The purpose of this DC is to provide an interface for the exchange of information and best practices between the negotiators of these trade agreements and the bodies in which they work, and the IGF and its multistakeholder community.

As a background paper for the DC notes: "In the absence of global binding norms on Internet related issues, and in light of fears of rising digital protectionism, states are seeking to draw up rules and frameworks for the digital economy through conventional mechanisms for international cooperation such as trade agreements. Although trade and Internet governance appear to be disconnected, with the growing significance of the Internet for international trade, a tenuous and complex relationship between the fields is emerging that will have repercussions on the development of the digital economy."

Important workshops in the digital economy theme included Realising the SDGs through policies enabling digital trade which addressed the Internet-enabled transformation to the global economy that has advanced cross-sectoral development, commercial opportunities for small businesses in developing countries, innovation, exchange of knowledge and opinions, and greater societal inclusion. Participants heard that the power of ICTs and digital innovations have the potential to help realise many of the UN Sustainable Development Goals (SDGs) and what research tells us about the economic developmental benefits of digital trade. Another workshop – The future of work: Is the gig economy working for the developing countries? – explored the impact of digitisation on the labour market in developing countries and its long-term implications for development, by discussing current research projects. See reports below.

Internet shutdowns continue to be a major concern for the digital economy, and were highlighted in the main session, Local Interventions, global impacts: How can international, multistakeholder cooperation address Internet disruptions, encryption and data flows. It was highlighted in this session that while there is increasing awareness of unintended impacts of Internet shutdowns, they continue to happen. Shutdowns may affect the exercise of human rights, have economic implications, and may lead to the fragmentation of the Internet (as they often have cross-border effects). The digital economy depends on the free flow of data, but this should be balanced with data protection. Governments, private companies, and civil society should work together on basic sets of rules that allow data aggregation and data flows, while also protecting the integrity of data and the privacy of individuals.

The main session heard from the #KeepItOn coalition, a global coalition of over 140 members, mostly from civil society, from 60 countries working to combat Internet disruptions through advocacy, norm building, detection and mitigation, and from Indonesia, Brazil and industry.

Shutdowns are a particular concern in Africa. Governments in Africa are increasingly enacting a "kill switch" for the Internet, as detailed in Internet shutdowns: Taking a toll on Africa's Internet economy, which was a well-attended workshop. Discussion on shutdowns has focused on human rights and freedom of expression, and less on the effect on the economy, but in 2016, 11 countries had Internet shutdowns in Africa, leading to about a loss of about $237 million, according to research by the Brooklyn Institute for Social Research. The workshop heard a report on the impact of shutdowns on Africa's economies that looked at not only impact on GDP, but also at factors such as lost foreign investment and impact on investor confidence.

GENDER AND YOUTH

Gender

Gender – specifically the involvement of women – was a key focus for IGF12, including participation in the meeting itself. Every session had a count of women and where relevant comments on how gender was addressed in the subject matter, regardless of the theme of the session. Of course, the gender sessions in the gender and youth theme specifically covered a spectrum of issues concerning women and internet governance, and there is also crossover with certain sessions in the access and digital economy themes, where gender – and also youth – are fundamental concerns for inclusion and economic empowerment. Indeed, one of the IGF's Best Practice Forums combines gender and access, and the IGF's work in Phase III of Connecting and Enabling the Next Billion(s) (CENB) has focused on 3 of the Sustainable Development Goals (SDGs), including Goal 5: Achieve gender equality and empower all women and girls. See the access, inclusion and diversity theme for short reports from the BPF on Gender and Access, and the CENB.

A highlight of IGF12 was the main session, [Gender Inclusion and the Future of the Internet](), the first time gender has been positioned in such a prominent position at the IGF. Among the key messages from the main session is that the gender digital divide manifests in multiple dimensions and discrimination on digital grounds is human rights issue. Efforts to enable women and girls to access infrastructure and digital technologies need to be complemented with promoting digital literacy, encouraging them to take jobs in technology fields, enabling them to create content that is relevant and valuable to their lives and contexts, as well as empowering them to contribute to Internet governance and digital policy processes.

It was underlined that special attention should be given to gender related issues of subgroups (such as rural women, girls, women in refugee camps) and gender minorities (such as LGBTQI), and the issue of online gender-based abuse and violence was highlighted as a continued challenge and issue to be addressed by all stakeholders.

Gender was also highlighted in the session that set the overall theme for the meeting. In the [High-level session – shaping our future digital global governance]() Lakshmi Puri (deputy executive director of UN Women) said her organisation is looking to a future which is beneficial equally to women. "And we also look to women shaping that future and where governance enables bridging of the digital divide with women being brought to tech and tech going out to women. And the digital revolution delivering for gender equality, women's empowerment, and women's human rights." She also said that SDG Goal 5, and the Internet world must deliver particularly on 5B, which is how enabling technology can solve gender equality. She also highlighted how governments can harness the opportunities that the Internet presents for women's empowerment, whether it's education, health, skills, capabilities, entrepreneurship – "It has a huge multiplier effect."

Major concerns of several sessions at the IGF were online harassment and violence against women, as well as women's rights to inclusion in the digital world. A paper issued by the Dynamic Coalition on Gender and Internet Governance in 2017, [An Internet for #YesAllWomen? Women's rights, gender and equality in digital spaces,]() which notes that there are five clusters of feminist principles for the Internet, namely access, movement and public participation, economy, expression, and "agency" – and it is this last one that is explored in the paper and was particularly relevant to several IGF session. Key issues in agency are consent, privacy and data, memory and anonymity. For example, consent has emerged as a critical women's rights issue in the digital age. Women's agency lies in their ability to make informed decisions on what aspects of their public or private lives to share in digital spaces – as information, data, text, images or video.

Youth and children

IGF12 continued the emphasis made in previous years on involving more young people in Internet governance issues, and youth issues also figured in sessions on the digital economy and future work opportunities, Internet access, and human rights (the latter where hate speech and online bullying can be particularly aimed at youth). There is also much crossover between the gender theme and young women and girls and also all young members of the LGBTQI community.

Issues for young people were also raised in the main session, NRIs perspectives: Rights in the digital world, not least because it was co-organised by Youth IGFs. There has been an encouraging increase in youth participation in IGFs in Africa, the session heard.

The main session, Digital transformation: How do we shape its socioeconomic and labour impacts for good?, heard for example about the impact of digitisation on youth in Asia and that the biggest concerns employment as automation, artificial intelligence and other emerging technologies take hold.

Online safety for children and lack of digital literacy to help combat the targeting of children remains a major concern and was highlighted in several sessions.

HUMAN RIGHTS ONLINE

Human rights has emerged as a key theme at the IGF and was well represented in both a main session and in various workshops and other sessions. There are a number of issues such as privacy, data protection and blocking, and IGF12 also featured freedom of expression online in the context of "fake news".

The IGF's National and Regional Initiatives (NRIs) majored on rights in two linked main sessions – here and here. It was said that rights such as privacy, data protection and freedom of expression are equally important in the digital space as they are in the physical world. While for some access to the Internet should be considered as a human right, others felt that access is more a need than a right but it was acknowledged that access to the Internet is an important enabler of development and growth. Some recommended that the protection of digital rights should be embedded in an inclusive approach that also considers the needs and rights of vulnerable groups and communities – such as children, women, gender minorities, people with disabilities.

Other challenges mentioned during the session were: Internet shutdowns; limited transparency in how some Internet intermediaries process personal data or deal with content control policies; individual self-censorship caused by activities such as surveillance; tendencies to trade off rights against each other; and the lack of effective legal frameworks at national level, or insufficient resources to implement them. New data-driven technologies such as the Internet of things and artificial intelligence were expected to have both positive and negative impacts on human rights. There was a broad confidence that multistakeholder processes could be effective in addressing challenges related to digital rights.

Fake news was highlighted in the high-level thematic session, Impact of digitisation on politics, public trust and democracy. While fake news was a major topic in 2017 and continues to be in focus, the term is still confusing, and it was noted that the words "disinformation" or "misinformation" could be used instead. Further, the phenomenon is not new, but now has a wider effect owing to digital technologies. There were diverse views on the roles and responsibilities of stakeholders at this high-level session. See below for reports from dedicated sessions on fake news; other fake news sessions are also included in the new technologies theme.

Human rights also features strongly in the access, inclusion and diversity, and gender and youth themes. The digital divide can be seen as discrimination of women and girls and so a human rights issue that states should address in line with international human rights frameworks, the main session, Gender Inclusion and the Future of the Internet, heard. It also covered online gender-based abuse and violence as a challenge. Issues such as Internet shutdowns and encryption have impact on human rights too, as the man session – Local Interventions, global impacts: How can international, multistakeholder cooperation address Internet disruptions, encryption and data flows – heard. The #KeepItOn campaign has been led by human rights defenders and journalists, for example while encryption helps promote public security, and allows better protection of human rights (such as those of activists, journalists and minorities). In turn, the cybersecurity theme also had a human rights component.

Two Dynamic Coalitions (DCs) held meetings in the human rights theme. The Dynamic Coalition on Platform Responsibility presented a key outcome of the DC for 2017, the book Platform Regulations: How Platforms Are Regulated and How They Regulate Us. The Internet Rights and Principles Dynamic Coalition meeting was a brainstorming session on the Educational Resource Guide to the Charter of Human Rights and Principles for the Internet. See below for reports.

MULTISTAKEHOLDER COOPERATION AND GOVERNANCE

The process of Internet governance and need for multistakeholder cooperation are fundamental to the IGF. The 2017 meeting emphasised this message in several main session, and not least in the high-level thematic session – [Shaping our future digital global governance,](#) where it was said that the Internet is associated with growing challenges that call for a better coordinated digital governance system at world level. Pooling the strengths of stakeholders – governments, private sector, technical community and civil society – is essential in any such effort. Priority areas are bridging the digital divide (in its multiple dimensions), fostering digital literacy, and supporting the development of the digital economy.

Governance structures need to focus on enhancing confidence and trust in digital technologies, ensuring security, and creating stability and predictability in cyberspace. Vint Cerf (Google), in asking the audience to cast their minds forward 10 years, said there for the IGF to be successful, there will need to be more multistakeholder collaboration for increased safety, security, reliability, stability and privacy practices aimed at building trust in the Internet. While it is challenging to determine values that can be shared by all stakeholder groups, and at a global level, there was common ground in core Internet values and the need to stay human-centred.

In the main session, Local interventions, local impacts: [How can international, multistakeholder cooperation address Internet shutdowns, encryption and data flows?,](#) it was said that the rapid growth of new technologies has outpaced traditional regulatory models and may prompt unilateral local actions that threaten the open, stable and interconnected nature of the Internet. Multistakeholder dialogue can help safeguard local interest, while maintaining a safe, secure and resilient global network that fosters socioeconomic development and innovation. Both the debate on encryption technologies Internet shutdowns highlighted multistakeholder discussion on policy options.

The multistakeholder theme was also evident in the main session, [Empowering global cooperation on cybersecurity for sustainable development and peace.](#) It was said that global cybersecurity issues have underscored the urgent need for a renewed multistakeholder dialogue on the security of cyberspace for peace and sustainable development, and that achieving the Sustainable Development Goals (SDGs) is under threat if there is no global cooperation on cybersecurity.

Various institutional frameworks for dealing with cooperation on cybersecurity are in place, but tend to operate in silos. Cybersecurity cannot be achieved by one stakeholder group on its own, and all stakeholders have roles and responsibilities. Such cooperation carries challenges, one of them being related to the fact that there is no universally agreed definition on the notion of cybersecurity. The Global Commission on Cyber Space (GCSC), that the Netherlands has helped launch, was given as a good example of a multistakeholder independent forum with experts from all regions of the world. An ITU representative reminded attendees that while multistakeholder dialogue is important, ultimately governments make decisions and it is important to ensure that the they take into account the deliberations of the multistakeholder forums such as the IGF, wand intergovernmental organisations and in particular the UN institutions also play a crucial role.

National, Regional and Youth IGFs (NRIs) are organised in accordance with the core IGF principles of being multistakeholder, bottom-up, inclusive, open, transparent and non-commercial, and have their numbers have grown rapidly. In the main session, [NRIs perspectives: Rights in the digital world](#)(and part two [here](#)), participants from various IGFs were asked about the effectiveness of the multistakeholder model can be an effective way in addressing digital rights. It was aid that it is important – vital even – but can also be challenging to involve all stakeholders, such as governments and small companies.

A number of workshops and Open Forums dug deeper into these issues. For example the workshop, [Good governance with governments: Getting governments involved in Internet governance considered that](#) government involvement is pivotal, and there is a concern that governments only involve themselves with IGFs for consultation purposes or in a tokenistic manner.

[At the workshop, Synthesis Document: A collective output shaping the future of the IGF and NRIs, participants heard](#) about the APrIGF Bangkok Synthesis Document, which aims to document items of common interest relevant to Internet governance in the Asia-Pacific region, and was published shortly before IGF12. The session showed how such a document can foster Internet governance discussion and collaboration both at regional level and for the global IGF.

An important workshop that demonstrated crossover with environmental issues was [Shaping a greener digital environment for all.](#)

A number of session in this theme looked at data governance issues as particularly instructive for cooperative approaches.

See also: [Workshop – Learnings from multistakeholder collaborations in cybersecurity response and capacity building in the cybersecurity theme.](#) This workshop aimed to develop understanding of how national CERTs work, coordinating collaboration among national and regional CERTs, and companies, and building cybersecurity capacity.

NEW TECHNOLOGIES AND EMERGING ISSUES – ARTIFICIAL INTELLIGENCE (AI), INTERNET OF THINGS (IOT), BIG DATA, BLOCKCHAIN, VIRTUAL REALITY, FAKE NEWS

This theme at IGF brought together the topics that are key trends in world discussion of the Internet and new technologies, but there are two that stand out as dominating current discourse – artificial intelligence (AI) and fake news – and this was also reflected in the number of sessions dedicated to various aspects of these topics at IGF12. IoT (and big data) have tended to become absorbed into other themes as enabling technologies, such as in the digital economy and human rights, but there are new ideas and concerns, such as the "informatisation" of the body and the concept of "dataveillance" – see Body as data: 'Dataveillance', the 'informatisation' of the body and citizenship and Datafication and social justice: What challenges for Internet governance?

Blockchain is also a current technology of great interest, not least because few people understand what it is and what its applications are.

Fake news was raised as an issue in many sessions at IGF12, although some prefer terms such as "disinformation". Fake news is also covered in the human rights theme. Note that AI is a technology that can be used to help combat fake news, as for example discussed in this session – Fake news, AI trolls and disinformation: How can the Internet community deal with poison in the system.

Some applications of new technologies are also best placed in other theme reports. A good example is the workshop, Out of my hands? – this covered the issue of "sextortion" in the context of online child safety and looked at whether AI, blockchain or encryption technology could enable an effective response (see brief report in the gender and youth theme).

There was one session on virtual reality – a topic that has long been talked about but is only now becoming feasible for owing to advances in technology and communications – and could well figure much more at IGFs in the future. See Virtual reality: The next computing platform for development.

The idea for the Dynamic Coalition on Publicness was raised at IGF11. Publicness is about the frame, content, interactions and processes shaping the public arena, public interest and the common good. Digitisation is bringing new questions and challenges about the understanding of what is private and public and what criteria should be used to decide this, and the DC has been set up to explore the context of what is "public" other than access or freedom of expression. For example, the right to be forgotten has been wrongly placed in a privacy context, when actually it is about the visibility of public information.

Artificial intelligence

Artificial intelligence (AI) is a huge and wide raging subject and also has direct links with other topics such as IoT and big data, as enabling technologies. AI is the subject of a wide spectrum of views that were explored at IGF12, from alarming projections about out of control machines and robots, and control and surveillance by big companies and governments, to benefits such as in healthcare applications that will be particularly important for developing countries to embrace so as to not open up new digital divides, and to help achieve the Sustainable Development Goals (SDGs).

The issues concerning AI and related technologies were set out in the main session, Digital transformation: How do we shape its socioeconomic and labour impacts for good? Participants recognised that data must be harnessed to realise the potential of digital transformation and that data flows will increase as IoT devices become pervasive and as data analytics, machine learning and AI are brought to bear on IoT and many other sources of data.

AI was also under review in many other forums and organisations leading up to the IGF, notably by the OECD, which co-hosted a workshop at IGF. The OECD Committee on Digital Economy is taking stock of opportunities and challenges raised by AI and of national and international AI initiatives by governments and by stakeholder groups and plans to look at ways to measure some of the impacts of AI and to consider high-level principles to help guide its development. Highlights of the OECD's event, AI: Intelligent Machines, Smart Policies, http://oe.cd/ai, were presented, where it was agreed on the need for human-centred AI that amplifies human ingenuity and earns the trust of all the stakeholders involved.

Other initiatives and events that fed discussion at this workshop include the Partnership on Artificial Intelligence to Benefit People and Society, which now has over 50 partner organisations and is led by Microsoft, and the IEEE's Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems, which now has close to 300 experts worldwide engaged in 13 working groups. There was also a session that was a follow-up to the AI and Inclusion Symposium held in Rio de Janeiro in November 2017 about the future of AI and how developing countries can play a role.

And UNESCO hosted an Open Forum that brought together a number of organisations concerned with big data and AI. Apart from UNESCO, they included United Nations Global Pulse, a big data/AI initiative that seeks to apply the technologies to meet the Sustainable Development Goals (SDGs).

There were also regional reports on AI, such as from Asia. It was mentioned that the two "superpowers" in AI are the US and China and that competition between the two could distract from issues for other countries.

The AI sessions at the IGF were concerned mainly with policy and regulatory issues, and in addressing the needs of developing countries, rather than the underlying technologies and concepts of AI, such as algorithms and machine learning. A key workshop was Making artificial intelligence work for equity and social justice (see detailed report below), in which it was stressed that AI is not just a set of discrete technologies to but a social force that is reorganising society and economy, and must be accountable as the centralisation of power in AI systems is a challenge for equity and social justice.

Blockchain

A main session of the Dynamic Coalitions heard from the DC on Blockchain – that Blockchain can improve the security of data and the stability of systems, but also raises questions of jurisdiction and governance. Blockchain was also mentioned in the main session, Digital transformation: How do we shape its socioeconomic and labour impacts for good? – it could be used in countries like Somalia, for example, to increase transparency and accountability for the huge sums of money received in international aid to rebuild the country after decades of conflict.

The DC on Blockchain held its own session and had issued a substantive paper before the meeting, noting the working groups in the DC that emerged following the 2016 IGF, and highlighting these governance issues for exploration:

• How does the move of some governments to adopt blockchain technologies for use in government processes but others to criminalise certain uses of cryptocurrencies, impact the future of the technologies' use and the trajectory of governance mechanisms?
• What social changes could blockchain put in effect in a community in order to foster social good?
• Is there a role for blockchain in reducing inequalities?
• How can blockchain developments be allied to sustainable development?

- Should developers build solutions to these questions with the overarching governmental concerns with consumer protection and anti-money laundering in mind? If so, how do they achieve that? If not, how do developers prevent walking into a regulatory conundrum like that faced by initial coin offerings (ICOs)?

Internet of Things (IoT)

Since the 3rd Internet Governance Forum (IGF) meeting in Hyderabad (2008), IoT has been on the agenda for multistakeholder discussions at all IGFs, and the Dynamic Coalition on IoT has consolidated much of the discussion. In 2017, the DC published a good practice paper, which represents ongoing thinking about towards a consensus on a global, multistakeholder position on an ethical approach towards loT development and deployment. The meeting of the Dynamic Coalition on the Internet of Things **invited feedback on these IoT issues:**

- Security, given that IoT is fulfilling increasingly critical functions, and that IoT devices remain in use for often indefinite times. What incentives does industry have to ensure sufficient security? How can standards help?
- Societal challenges, given that IoT has promising applications – but how can developing countries ensure they have affordable, IoT-enabled agriculture and disaster warning systems? What can be done for capacity building?
- The safety net element: how can we ensure independent trusted expertise is available to explore whether systems are doing what they promise, and attributing actions and responsibilities, and what can be done to provide insurance for systems that fail.

WHAT ELSE HAPPENED AT IGF12?

Digital Geneva track

This was a series of Open Forums organised by bodies based in Geneva that served to showcase diverse digital policy interests and mandates. They included the following.

Managing cloud computing in the United Nations system – this session highlighted research carried out by United Nations Joint Inspection Unit (UN JIU), which aims to gather information to help UN agencies to design and implement policies and practices of cloud computing. The legal issues of cloud computing for international organisations were also discussed.

Digitisation and international trade – there was a summary of the main findings of the Information Economy Report 2017: Digitalization, Trade and Development, and the need for improving the interaction between the Internet and trade worlds was stressed, and suggestions made for bridging the gap. The session was run by UNCTAD.

Data for the humanitarian field – New data is being collected for humanitarian purposes, including geospatial and crowdsourced data. The session looked at the ways in which the humanitarian community can best use this data while avoiding breaches in privacy and data protection. The organiser was the International Federation of Red Cross and Red Crescent Societies, which also organised a complementary session, Data protection and humanitarian action, which presented the Handbook on Data Protection in Humanitarian Action.

Local content in the media – organised by WIPO, the meeting heard how rich and varied local content requires several essential elements including enabling technologies, adequate Internet connections and a balanced regulatory framework. Paying for content may be the only way to ensure local media professionals stay in business given that advertising has moved to major Internet platforms.

Tackling violent extremism online: New human rights challenges for states and businesses – organised by the UN High Commissioner for Human Rights, the forum noted the lack of a universal definition of terms like extremism or terrorism, often leading to an overly broad understanding, and how companies can balance respect for freedom of expression and preventing violent extremism on the Internet.

Big data, business and respect for human rights – organised by the European Broadcasting Union, Swiss Federal Department of Foreign Affairs and Council of Europe, the session covered issues such as how to enforce legal instruments developed to mitigate big data's human rights risks, the importance for companies to be aware of their responsibilities, and the impact of AI. John Morrison (Institute for Human Rights and Business) said that existing human rights frameworks are "stretched to the limit" trying to provide answers to its challenges. In addition, industry – and especially the "industrial Internet" – is insufficiently addressing the human rights concerns of big data, attending mainly the short-term risk of data security.

Data and trade: Identifying win-win solutions for future digital commerce – this session looked at how to enhance the benefits, and mitigate the risks, of integrating data and trade policies in terms of data flows and privacy protection. The organiser was the International Trade Centre and the session included a contribution from Adam Schlosser, lead for the Digital Trade and Cross Border Data Flows project at the World Economic Forum.

Data in environment and climate activities – Presenters from the World Meteorological Organization (WMO) talked about satellite data in weather, climate, and environmental applications and the WMO's information system strategy.

[ITU/UN Women EQUALS in tech. Panel discussion: Closing the gender digital divide](#) – EQUALS is the global partnership for gender equality in the digital age, a multistakeholder initiative launched by the ITU and UN Women in 2016. Participants heard about progress and barriers in using the Internet, and about the EQUALS awards programme.

[WSIS Action Lines: Advancing the achievement of SDGs](#) – organised by WSIS/ITU the meeting focused on informing stakeholders and soliciting suggestions for the 2018 WSIS Forum. Issues raised included food security, digital privacy and human rights, youth engagement, and sustainable business practices.

[Geneva's platform for global digital governance](#) – this signalled the launch of the Geneva Initiative on Capacity Development in Digital Policy and was announced by the State of Geneva.

[Data and the SDGs: From opportunities to impact](#) – the DG Lab at the UN Office in Geneva highlighted the importance of data is increasing the opportunities for better-informed policy this also places additional demands on the monitoring processes, especially in the area of development. Barbara Rosen Jacobson (DiploFoundation and the Geneva Internet Platform) presented research from the High-Level Political Forum on Sustainable Development (HLPF), which has found that data disaggregation is a key challenge for SDG implementation and monitoring. Other contributions came from Flowminder Foundation, ETH/UZH Citizen Science Center, and the International Federation of Red Cross and Red Crescent Societies (IFRC).

[Strengthening capacities in international Internet governance](#) – this session was organised by the ITU, DiploFoundation and the South School of Internet Governance (SSIG), and highlighted an ITU study on capacity building which was completed in 2017. Susan Teltscherd (ITU) described the training approaches in the study. Tereza Horejsova (DiploFoundation) focused on the main gaps and needs of developing countries, which face limitations in terms of size, language, priorities, and resources. The elephant in the room – paying for capacity development – needs to be addressed. Olga Cavalli (SSIG) provided examples from experience with the school, which started in 2008. The creation of the Dynamic Coalition on Schools of Internet Governance on Day 0 of IGF12 was noted.

'Day 0' events

The day before the meeting itself kicks off, a number of sessions take place of varying types. Some serve as preparatory meetings for more detailed sessions to come. Others help to orient delegates. Some are also mentioned elsewhere in this report.

Cybersecurity was a key theme at IGF12 and the session, Unpacking the Global Conference on CyberSpace 2017 - Charting a forward course, helped set the scene for the main cybersecurity session and other sessions during Days 1–4. The GCCS is one of the leading multistakeholder initiatives in cybersecurity and this session raised lessons for taking on to the next GCCS and for informing the IGF. Another Day 0 session, Human rights based cybersecurity strategy, which covered issues such as ensuring there is trust and security that is not undermined by efforts against terrorism or cyber-attacks.

Human rights and freedom of expression issues were further covered in Reflections from the Forum on Internet Freedom in Africa, which share insights and learning and emerging from discussions from the September 2017 Forum on Internet Freedom in Africa (FIFAfrica), and The Battle for Freedom of Expression Online: Where are the Journalists?, which asked The lack of media sector participants in global internet governance debates and ack of coverage of internet governance, and also covered online attacks against journalists and the viability of news outlets.

Access and inclusion sessions on Day 0 included Working toward universal access: Educate, engage and empower, which brought together seven global working groups working on digital literacy, public access, community networks, innovative and alternative business and investment models, energy and connectivity, evidenced-based research and digital equality. Creating a world of inclusion in social and economic opportunities for women from developing countries was a roundtable drawing on experiences of Tech Nation's TechWomen in Afghanistan, and organisations now working in Nigeria, South Africa, Pakistan, and was joined by experts from the World Bank, UNCTAD, CSTD's Gender Advisory Committee, Alliance for Affordable Internet, My Digital Bridges – Namibia, and other women entrepreneurial initiatives. Leveraging business expertise to foster an enabling environment for the digital economy discussed how business can support digital transformation and was the informed by a policy paper, ICT, policy and sustainable economic development, from the International Chamber of Commerce.

Day 0 events typically feature Internet governance, leadership and organisational, multistakeholder aspects. At IGF12 they included the following.
Good governance is a professional standard, which builds trust and cybersecurity in the entire digital ecosystem – This generated discussion about trust and the professionalisation of cybersecurity to be carried forward to the International Federation of Information Processing (IFIP) IP3 (International Professional Practice Partnership) workshop at WSIS in March 2018. IFIP defines and maintain global standards for ICT, and certifies professionalism.

Collaborative Leadership Exchange (CLX) on shaping the digital future – The Collaborative Leadership Exchange was launched by the Internet Society at the 2012 Global INET and then replicated at IGF. The session takes the format of an unconference, with peer-to-peer style learning and engagement, networking and relationship building, interactive discussions and promotion of increased collaboration across the Internet ecosystem.

Strengthening cooperation within the context of the IGF: Creating a roadmap for 2018 – This session explored an idea for fostering more collaboration among parts of the IGF community and arose from a previous meeting that looked at breaking down silos in cooperation in cybersecurity.

[Digital activists are shaping the evolution of the Internet: The voice of civil society in ICANN](#) – Panellists described how civil society participates in and contributes to ICANN, and how the voice and knowledge of global civil society can be strengthened within the multistakeholder model.

[Second Meeting of All Schools of Internet Governance (All SIG Meeting)](#) – The session heard contributions from a number of Schools of Internet Governance (SIGs), with a focus on the Asia-Pacific SIG. There was also [Founding Meeting of a Dynamic Coalition on Schools of Internet Governance](#) – see [here](#) for its plans.

[Women and LGBTQ in the IGF](#), which argued for to create an official space in the agenda for the women and LGBTQI attending the multiple IGF spaces in the global IGF. A track like the Youth one.

Other Day 0 sessions included:

- [10 years of Internet Governance from the SSIG perspective](#) – This was a presentation of the book "Internet Governance in the Americas", scheduled for publication in 2018 by the South School on Internet Governance (SSIG) . The book is edited by Luca Belli (Getulio Vargas Foundation) and Olga Cavalli (SSIG).
- The Global Internet Governance Academic Network (GigaNet) held its [12th annual symposium](#) on day 0. The symposium ran all day and had a number of panel sessions
 A few uncategorised sessions also took place on other days, and included:

[Internet and Jurisdiction Policy Network](#) – a discussion on the I&J's objectives and how the field is plagued by uncertainty on how national laws apply in cyberspace.

[IGF Youth initiatives](#) – This was a short open meeting on IGF Youth initiatives. Anja Gengo (IGF secretariat) noted the main models of IGF engagement – national and regional IGFs, independently organised initiatives and capacity building – and how these can apply to young people. Issues raised included training, the challenges faced by newcomers, and mentorship programmes.

[National Digital Policy Playbook: New approaches for collaboration and impact](#) – This session focused on the "Digital Policy Playbook: Approaches to National digital Governance", published by the World Economic Forum (WEF)

Lightning sessions

For the second year there was a number of lightning session – 20-minute sessions that are shorter, more informal versions of full-length workshops or presentations. Topics were selected from proposals for workshops that could not be accommodated into the main program. A total of 23 lightning sessions took place. The sessions (with links to slides/reports where available) were:

Opportunities for labour markets through online education

Privacy for Kids: the booklet

SpeakUp Barometer - How to assess digital participation

Friends of IGF project

Resolved: Technical bodies must recognize their responsibility to public policy in the digital age

I can't find it! Lack of relevant content online as a barrier to access to knowledge
Jurisdiction on the Internet: Understanding global trends
Benchmarking ICT companies on digital rights: How-to and lessons learned
The impact of domain names on children's rights and child safety
Prioritising the commitment to an open Internet in the digital future
Remembering not to forget: Worst and best case scenarios for digital heritage preservation
Blurring the lines between work and play: Emerging youth practices and the digital economy
Automated guardians of the good? Algorithms impact in the exercise of rights
Smart cities initiatives and public policy: towards a "data for good" approach
Data transparency through the right of access
Access forbidden: Internet under the crossfire of jurisdictions

Community networks: Shaking-up connectivity paradigms – putting the last mile first to connect people

(Self-)regulation of algorithmic systems that control online information access
Accessible mobile apps: Digital lifestyle for visually impaired people in the Internet era

Researching digital rights: cross-context experiences

Online gender-based violence: A Latin American perspective
Digital rights in Africa: A review of 2017
Build it or break it: How to leverage BRICS digital advantages and leave behind our shortcomings

SESSIONS BY DAY WITH LINKS TO VIDEOS, TRANSCRIPTS AND REPORTS

Main sessions

Day 1 – Local interventions, global impacts: How can international multistakeholder cooperation address Internet disruptions, encryption and data flows

Day 2 – Empowering global cooperation on cybersecurity for sustainable development and peace
Day 2 – High level thematic session: Impact of digitisation on politics, public trust and democracy

Day 3 – Dynamic Coalitions: Contribute to the digital future!
Day 3 – Gender inclusion and the future of the Internet
Day 3 – NRI perspectives: Rights in the digital world
Day 3 – NRI Perspectives: Rights in the digital world (2nd section)

Day 4 – Digital transformation: How do we shape its socioeconomic and labour impacts for good?

Best Practice Forums (BPFs)

Day 3 – BPF on cybersecurity
Day 3 - BPF on gender and access

Day 4 – BPF on local content
Day 4 – BPF cybersecurity coordination session

Dynamic Coalitions

Day 1 – DC Blockchain Technologies
Day 1 - Room XXII - DC on Core Internet Values
Day 1 – Internet Rights and Principles Coalition

Day 2 – DC Community Connectivity
Day 2 – DC on Trade
Day 2 - Room XXII - DC Platform Responsibility
Day 2 – DC Internet of Things
Day 2 – DC Public Access in Libraries
Day 2 – DC on Net Neutrality

Day 3 – DC on Accessibility and Disability
Day 3 – DC Gender and Internet Governance
Day 3 – DC on Child Online Safety

Day 4 – DC On Publicness
Day 4 – DC Connecting the Unconnected
Day 4 – Youth Coalition on Internet Governance
Day 4 - Room XXVI - DC Coordination Session

Open Forums

Day 1 – OF16: Regional Internet registries
Day 1 – OF15: China's Internet policy to shape the digital future
Day 1 – OF29: Managing cloud computing in the United Nations system
Day 1 – OF19: Seed Alliance and gender inclusion: Towards great female leadership on the Internet
Day 1 – OF37: Council of Europe intermediaries: Shared commitments and corporate responsibilities

Day 2 – OF40: The new corporate digital responsibility: Duties of care and the Internet of Things
Day 2 – OF24: OECD Project Going Digital: Making the transformation work for growth and wellbeing
Day 2 – OF 22: Digital transformation of the Lebanese telecoms sector
Day 2 – OF61: Fostering Internet usage in Afghanistan via regulatory measures
Day 2 – OF49: Big data, business and respect for human rights
Day 2 – OF50: ICANN: Looking ahead challenges and opportunities
Day 2 – OF51: Internet Society Open Forum
Day 2 – OF81: Local content in the media
Day 2 – OF75: Data for the humanitarian field
Day 2 – OF78: EU Delegation to the IGF and Youth IGF movement
Day 2 – OF42: AI Solutions for nimble public services
Day 2 – OF80: Tackling violent extremism online: New human rights challenges for states and businesses
Day 2 – OF48: Digitisation and international trade

Day 3 – OF70: Cybersecurity 2.0: Leveraging the multistakeholder model to develop and deploy cybersecurity policy
Day 3 – OF73: Data and trade: Identifying win-win solutions for future digital commerce
Day 3 – OF74: Strengthening the IGF: the German community invites you to a discussion
Day 3 – OF88: WSIS Action Lines: Advancing the achievement of SDGs
Day 3 – OF93: Data in environment and climate activities
Day 3 – OF33: Protecting human rights online: The Freedom Online Coalition
Day 3 – OF64: OAS/OEA and the promotion of national cybersecurity strategies in the Americas
Day 3 – OF77: Geneva's Platform for Global Digital Governance
Day 3 – OF6: African IGF Open Forum
Day 3 – OF55: Digital inclusion for Africa
Day 3 – OF31: Data protection and humanitarian action
Day 3 – OF69: A global agenda on cyber capacity building: Outcome GCCS 2017
Day 3 – OF72: Next generation Internet
Day 3 – OF26: IT/UN Women equals In tech panel discussion: Closing the gender digital divide
Day 3 – OF90: Regional cooperation for the advancement of electronic government

Day 4 – OF53: Harnessing digital economy opportunities by supporting SMEs
Day 4 – OF89: Data and the SDGs: From opportunities to impact
Day 4 – OF83: Portal of the municipal government
Day 4 – OF66: Exploring implications of big and artificial intelligence for knowledge societies and SDGs
Day 4 – OF86: Memory and documentation in Internet governance: The challenge of building collections
Day 4 – OF95: Islands surrounded by land and sea: The road to full connectivity
Day 4 – OF17: Building blocks of trust for a sustainable evolving Internet
Day 4 – OF67: Commonwealth Open Forum: Facilitating investment in cybersecurity as a means of achieving the Sustainable Development Goals
Day 4 – OF94: Strengthening capacities in international governance

Workshops

Day 1 – WS151: E-commerce: Good or bad for development?

Day 1 – WS241: Artificial intelligence and inclusion

Day 1 – WS17: Shaping a greener digital environment for all

Day 1 – WS186: Data governance and policy: developing a curriculum

Day 1 – WS 50: Data is the new oil: Shaping the digital economy of MENA

Day 1 – WS12: Social responsibilities and ethics in artificial intelligence

Day 1 – WS48: The future of Internet identifiers: How the DNS will function in a smart cyberspace

Day 1 – WS37: Tackling gender divides: ICT and women's economic empowerment

Day 1 – WS4: Small island developing states (SIDS) roundtable: Are we running out of resources and bandwidth?

Day 1 – WS71: How devices, content and innovative business models shape our digital future

Day 1 – WS75: Internet and big data governance

Day 1 – WS60: The future of work: Is the gig economy working for developing countries?

Day 1 – WS180: Body as data: Dataveillance, the Informatisation of the body and citizenship

Day 1 – WS39: Critical issues in improving cybersecurity incident response

Day 1 – WS49: Digital inclusion for women: Scaling up our efforts

Day 1 – WS57: A playbook for gender equality: How to harness the power of digital media and emerging tech

Day 1 – WS157: What digital future for vulnerable people?

Day 2 – WS168: The role of Internet governance content in shaping our digital future

Day 2 – WS178: Assessing implications of Internet shutdowns according to Internet governance principles

Day 2 – WS100: Bridging digital divides through cybersecurity capacity building

Day 2 – WS31: Cybersecurity: Balancing security, openness, and privacy

Day 2 – WS197: Fighting fake news, protecting free speech: Global perspectives on combating online misinformation

Day 2 – WS251: Fast tracking digital dividends for women in CASA

Day 2 – WS6: IG grassroots initiatives, youth leaders at the table

Day 2 – WS128: The future of Internet governance: submarine cables and global interconnectivity

Day 2 – WS215: Selective persecution and the mob: Hate and religion online

Day 2 – WS34: A Digital Geneva Convention to protect cyberspace

Day 2 – WS76: Multistakeholder governance of the Domain Name System: Lessons learned for other IG issues

Day 2 – WS166: Combating online violence against politically active women

Day 2 – WS184: Surveillance from the margins

Day 2 – WS90: Achieving the 2030 Sustainable Development Agenda in a digital future: Where do youth stand

Day 2 – WS202: Internet of Things: Supportive role of smart solutions in the decision making process

Day 2 – WS99: Is there a place for digital civility in our future?

DAY 2 – WS123: Internet of Things and cybersecurity

Day 2 – WS133: Governance innovation in the age of the sharing economy

Day 2 – WS152: Online freedom for all = No unfreedom for women. How do we solve this equation?

Day 2 – WS91: Policy challenges for AI development

Day 2 – WS 113: Emerging challenges for data protection in Latin American countries

Day 2 – WS107: Out of my Hands?

Day 2 – WS61: Between a rock and a hard place? Identifying encryption policies that respect human rights

Day 2 – WS68: Fake news, AI trolls and disinformation: How can the Internet community deal with poison in the system

Day 2 – WS109: How counter narratives can help pluralistic democracy to flourish online
Day 2 – WS111: Financing and building sustainable community networks: the Coolab experience
Day 2 – WS14: Realising SDGs through policies enabling digital trade
Day 2 – WS32: Data localisation and barriers to cross-border data flows
Day 2 – WS145: The Internet of Things and accessibility for people with disability
Day 2 – WS193: Youth engagement in the Internet governance ecosystem: Current scenario, controversies and future actions
Day 2 – WS261: CyberBRICS: Building the next generation Internet step by step
Day 2 – WS54: Universal design and creating an accessible digital future

Day 3 – WS167: Internet governance in times of the digital economy
Day 3 – WS250: The dark side of Internet policy: How flawed policy can lead to censorship, surveillance and shutdowns
Day 3 – WS291: Council of Europe: Introducing the updated Internet
Day 3 – WS58: Internet inclusion solutions: Shaping the digital future
Day 3 – WS129: Making artificial intelligence work for equity and social justice
Day 3 – WS38: International cooperation between CERTS: Technical diplomacy for cybersecurity
Day 3 – WS53: Multistakeholder consultation on defining Internet universality indicators
Day 3 – WS93: AI: Intelligent machines, smart policies
Day 3 – WS164: Terrorism: Freedom versus security
Day 3 – WS200: Two networks will shape your digital future
Day 3 – WS67: Content regulation and private ordering at Internet governance institutions
Day 3 – WS 201: State-led interference in encrypted systems: A public debate on different policy approaches
Day 3 – WS141: Equipping populations with skills to shape and secure their digital future
Day 3 – WS160: Policy and technology approaches for expanding broadband to rural and remote areas
Day 3 – WS209: Legal challenges in cloud forensics
Day 3 – WS42: Internet of Things for the smart city: Green and sustainability
Day 3 – WS8: Defending freedoms
Day 3 – WS130: How does social media shape our minds?
Day 3 – WS134: Fake news and possible solutions to access information
Day 3 – WS212: Navigating gender and youth challenges
Day 3 – WS147: Beyond the next gig: Unpacking development
Day 3 – WS191: Public policies to deploy IPv6 in developing countries
Day 3 – WS248: Virtual reality is the next computing platform for development: Challenges and opportunities
Day 3 – WS149: Criminal jurisdiction in cyberspace: Towards solutions
Day 3 – WS192: The government hacks back: chaos or security? A debate
Day 3 – WS214: How can we limit the negative impact of carrier grade NAT technology
Day 3 – WS161: Explaining Internet governance to friends and family 101: How to improve our communication
Day 3 – WS230: Youth participation in Internet governance
Day 3 – WS282: Biometrics and identity in the Global South
Day 3 – WS303: Artificial intelligence in Asia: What's similar, what's different? Findings from our AI workshops
Day 3 – WS137: Trust and trade across borders: Shaping future international e-commerce from developing countries
Day 3 – WS150: Good governance with governments: Getting governments involved in Internet governance
Day 3 – WS182: What are future scenarios for global cooperation in the cybersecurity field?
Day 3 – WS256: What's going on at the ITU: How it affects governance and why you should probably care

Day 0 and other sessions

Day 2 – Special/MS data for sustainable development road maps
Day 2 – IGFSA Annual General Assembly

Day 3 – APC Global Information Society Watch launch

Day 4 – Internet and Jurisdiction Policy Network
Day 4 – National Digital Policy Playbook: New approaches for collaboration and impact
Day 4 – IGF youth initiatives