

WSIS FORUM 2018: EXTENDING THE DEBATE

The debate on new technologies has become an integral part of the wider digital policy discussion. The developments in artificial intelligence (AI) and big data are happening at a fast past, bringing economic, security, legal, and ethical considerations into sharper focus.

This year, the World Summit on the Information Society (WSIS) Forum reconfirmed that digital developments do not happen in a vacuum. The discussion on how to achieve the sustainable development goals (SDGs) was influenced by the fast developments of new technologies, such as AI and big data, and the growing political and policy relevance of digital developments.

In analysing the discussions, as part of our just-in-time reporting initiative from WSIS Forum 2018, we observed two trends in particular.

The first trend is that there is less and less difference between development and the wider digital policy discussion. This trend is triggered by new technologies which open broader economic, security, legal, and ethical considerations for both developed and developing countries.



Watching through a lens: ITU Secretary General Houlin Zhao at the Opening Ceremony of this year's WSIS Forum. Credit: ITU/D.Woldu

Geneva Internet Platform









This report has been prepared by the Geneva Internet Platform, with support from ICANN, the Internet Society, and DiploFoundation. GIP session reports are available on the *GIP Digital Watch* observatory at https://dig.watch/wsisforum2018. The official WSIS Forum 2018 outcomes are available on the ITU website.

CThis icon indicates that there is more background material in the digital version. Alternatively, visit https://dig.watch for more in-depth information.

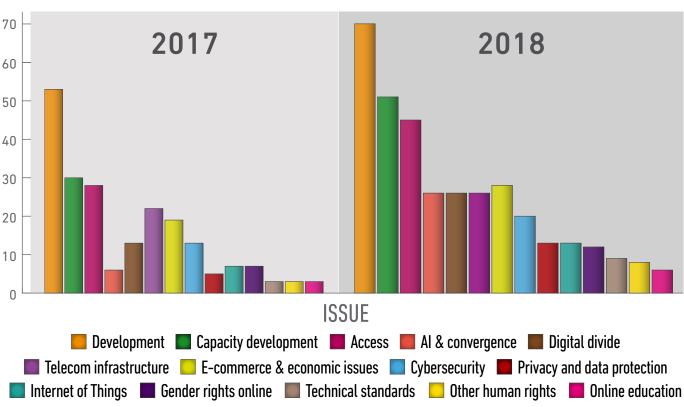


The trend actually emerged last year with discussion on how the Internet of Things (IoT) and big data can be harnessed to realise the SDGs, 2 and how developing countries – and not only the most developed – can take advantage. This year, the discussion intensified. From the impact of automation on jobs, to the risks associated with AI systems making decisions on their own, stakeholders are now looking at how new technologies are generating new economies, businesses, and jobs.

The second trend is that issues which were traditionally on the outer margins of WSIS discussions have moved to the centre. Many sessions at the WSIS Forum focused on cybersecurity, privacy, and e-commerce, and their links to sustainable development. The WSIS Forum 2018 tackled a broader spectrum of issues, compared to our analysis of the previous WSIS Forum.

The increasing convergence of development debates with security, data, and commercial debates is likely to continue this year. We will continue monitoring these and other trends in digital policy.







WHY A WSIS FORUM?

In December 2003, governments, international organisations, the private sector, and civil society gathered in Geneva to discuss what can be done to create an inclusive information society. This was in the framework of the so-called first WSIS phase, an event proposed by the ITU's Secretary-General and endorsed by the United Nations General Assembly (UNGA).

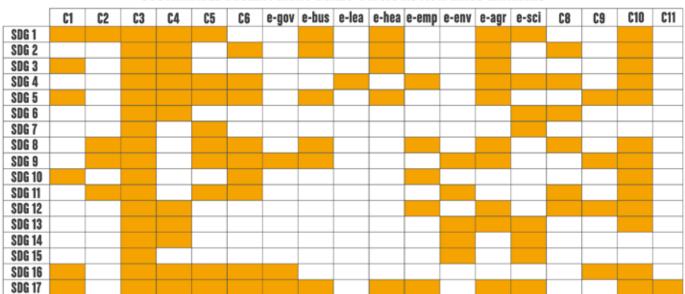
What resulted from this gathering of more than 11 000 participants was a Geneva Declaration of Principles and a Geneva Plan of Action. The Declaration included several principles that were to guide the creation of a 'peoplecentred, inclusive and development-oriented information society' – covering areas from confidence and security in the use of information and communications technologies (ICTs) to the ethical dimensions of an information society. These principles were transposed into specific action lines in the Plan of Action to be carried out by all actors to ensure that people around the world had access to and could use ICTs as tools for development.

Two years later, in 2005, the second phase of WSISC to the adoption of the Tunis Commitment and the Tunis Agenda for the Information Society – documents which went into more detail on issues relating to how to financially support actions to bridge the digital divide, and who and how to 'govern' the Internet.

Fast forward to September 2015. The UNGA adopted the 2030 Agenda for Sustainable Development, outlining 17 SDGs to be achieved by 2030 in 'areas of critical importance for humanity and the planet'. Among them, Goal 9.c aims to 'significantly increase access to ICT and strive to provide universal and affordable access to the Internet in least developed countries by 2020'.

Summing up, we have the WSIS action lines from 2003, focused on achieving an inclusive information society, and the 2015 SDGs focused on achieving sustainable economic and social development. Have the WSIS action lines been achieved? Where are we with the implementation of the SDGs? And what is the link between the two? These are questions that the WSIS Forum looks into each year, as it brings together stakeholders from around the world to discuss the role of ICTs in achieving sustainable development.

The theme of this year's forum was 'Leveraging ICTs to build information and knowledge societies for achieving the SDGs'. Throughout the week, more than 200 sessions gave participants a chance to exchange information and share good practices in advancing sustainable development through the Internet and digital technologies. Access and digital divides, cybersecurity and privacy, IoT and AI, and multilingualism and cultural diversity were some of the topics tackled. In our report, we summarise these discussions.



SUSTAINABLE DEVELOPMENT GOALS \ WSIS ACTION LINES LINKAGES



Which issues were discussed during WSIS Forum week? What were the main messages signposted? What follows is a thematic summary, which uses DiploFoundation's Internet governance taxonomy^[2] to group issues together.



Issues related to development came up in many of the sessions at this year's WSIS Forum. The strong commitment to the SDGs and recognition of the importance of ICT to achieving them that we saw over the last year continued and intensified at this WSIS Forum.^[2] Digital inclusion and bridging the digital divide were addressed in many of the sessions and were regarded as crucial for achieving the SDGs by harnessing the power of technology.

In contrast to previous years, this year saw a greater emphasis on the role of big data as well as automated systems and AI as mechanisms for achieving the SDGs.^[2] While questions of the ethics of AI and automated systems and their design were critically assessed, there was generally consensus that these technologies will play an inevitable and crucial role in achieving the SDGs. Similarly, the role of virtual and augmented reality in achieving the SDGs was also discussed.^[2]

Digital inclusion and bridging the digital divide are crucial for achieving the SDGs by harnessing the power of technology.



Young participants try out the Virtual Reality devices on Day 1 of this year's WSIS Forum.

Credit: ITU/R.Farrell

WSIS ACTION LINES





Together, sessions highlighted that the role of new technology for achieving social and global goals has become a prominent topic. Looking at new technology and its potential role in society, speakers argued that people and their wellbeing need to be put at the centre.² ICT accessibility was related to making appropriate design choices with people at the centre of these choices.² ² There were also calls for better utilising universal design approaches, by focusing more on how new technology is designed, created, and used.²

A number of sessions looked at Africa and the digital transformation, taking into account infrastructure as

well as policy-making needs, and examples related to specific sectors² and countries. The conversations also took into account the need for joint efforts in creating a single digital market. The role of the Smart Africa Manifesto came up as an example of budding multilateral efforts.²

Education and building the conditions for a highly educated workforce to flourish were prominent topics as part of this theme.^[2] Similarly, calls for using e-tools to foster greater citizen participation came up in a number of sessions and were specifically linked to fostering development.^[2]



High-quality and resilient telecommunications infrastructures are the backbone of digitalisation.^[2] To support the deployment or enhancement of such infrastructures, governments are devising strategies focused on different dimensions. These include enhancing broadband availability, improving the radio spectrum management to support mobile connectivity, and putting in place regulations and policies to support the telecom sector, while also ensuring market competition.^[2]

When it comes to the type of technology, the choices also vary, depending on national conditions (such as geography). Some initiatives focus on fibre optics; others explore the opportunities offered by TV white spaces, and yet others rely on the use of satellites. It is also work being done on setting-up national and regional Internet Exchange Points (IXPs), and expanding international submarine telecom cables.

Local communities are also becoming more active in solving connectivity problems on their own, through community networks. Governments could support such efforts through regulatory measures, financial assistance, and capacity building.

International organisations and large tech companies and associations are also working to increase the availability and quality of ICT infrastructures around the world. Examples include the Broadband Commission for Sustainable Development, 12 the ITU, 12 the European Commission, 12 Facebook, 12 and the GSM Association GSMA. 13

But existing networks, such as 3G and 4G, are likely not enough to support the growing connectivity requirements brought by the fourth industrial revolution. Work is being done to make 5G networks a wide-spread

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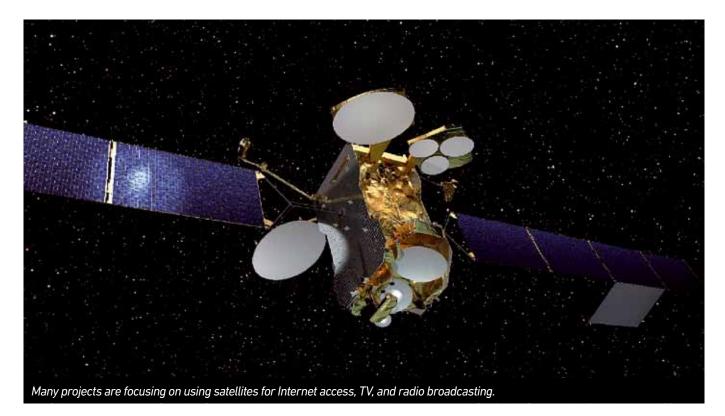
reality I and overcome related challenges – from regulatory to technical ones.

With an adequate infrastructure in place, the IoT can help achieve the SDGs. This can be done through applications such as drones that deliver medicines^[2] and other humanitarian did^[2] in hard-to-reach locations, unmanned vehicles that improve agricultural activities,^[2] and smart cities that allow more efficient public and private services.^[2] But with increased connectivity also comes challenges in areas such as safety, (cyber)security, and even privacy and data protection. To address such challenges, policies and regulations need to be combined with technical standards.^[2]

Al is here to stay, and we have to find ways to embrace its potential for good.

Al and automation are more than buzzwords. They, too, have real-life applications, from machine translation to autonomous cars, and from medical robots to e-government services. As technological progress continues, AI applications could generate new economies, businesses, and jobs. But the use of AI also raises concerns, from the impact of automation on the job market, to the risks associated with AI systems making decisions on their own.

One thing is clear: Al is here to stay, and we have to find ways to embrace its potential for good, while making sure that Al systems are designed and used in transparent and accountable ways² that are consistent with human rights and values.² While governments and intergovernmental organisations (IGOs) could play an important role through policies and regulations, other stakeholders need to be brought to the table as well.²



SUSTAINABLE DEVELOPMENT GOALS







Innovation in the ICT sector can accelerate the process towards digital transformation, contributing to achieving the SDGs.^[2] Nevertheless, sustainable innovation requires partnerships among stakeholders and an enabling policy environment.

In a complex world, in which economic and policy issues are increasingly intertwined, a closer dialogue among economists and policymakers is needed. Some organisations, such as the Asia-Pacific Economic Cooperation (APEC) and the Organisation for Economic Co-operation and Development (OECD), have acted as brokers in this dialogue, producing recommendations and guidelines to foster development-oriented digital economy policies.

These initiatives aim to create the conditions necessary for the digital economy to flourish, based on the free flow of information, risk management, trust, and the engagement of all stakeholders. Another important aspect is strengthening competition in the digital economy, however, concerns over concentration of Internet services are on the rise. Although a large market share is not necessarily bad, it could become detrimental if market power leads to harm to competition or to consumers.

The development of inclusive integrated policy frameworks can increase efficiency by encompassing transversal issues such as digital security, policy design, and strategic foresight.^[2] The importance of planning is clear in initiatives such as Smart Africa, currently joined by 25 African states, aiming to create a single digital market for Africa, and to harness the power of ICT for socioeconomic development.^[2] In order for Africa to take advantage of the digital transformation, strengthening education in ICT fields is important, as well as creating an ecosystem capable of nurturing companies making sure engineers find jobs in the market.^[2] Financing the digital transformation in countries with low resources is not easy, but there are alternative mechanisms being adopted, such as public-private partnerships (PPPs), micro entrepreneurship, innovation funds, incubation opportunities, crowdsourcing, and social impact funds.

An inclusive digital economy also requires a humancentric approach to policy development. This includes taking proactive steps to close the gender divide in access to ICTs, building conditions for women's entrepreneurship, including in areas such as e-commerce. Being online levels the playing field for women-owned businesses; while only 25% of strictly offline businesses are owned by women, this number doubles with e-commerce endeavours run by female entrepreneurs Nevertheless, there are other non-ICT-related barriers for women's entrepreneurship, such as discriminatory laws, access to business-oriented education, and credit and financing. ICTs can democratise access to finance, especially through the widespread implementation of e-payment systems.

It is also important to consider the needs of specific sectors, such as micro, small, and medium enterprises (MSMEs), which are sometimes afraid of going digital because of the burden of regulation, of the bureaucracy of 'going formal' and of managing reputation. Capacity building is important in this scenario, as the lack of appropriate skills is one of the most common barriers to e-trade in the developing world.

Looking forward, a human-centric approach should also be adopted as emerging technologies, such as AI become pervasive in many areas of society. AI will impact productivity growth at rates not observed before; it is therefore important to design policies to shape the way this growth will be distributed in order to avoid increasing inequality.







As the Internet permeates modern life, its effects on society quickly amplify. Sustainable development and the move towards knowledge societies go beyond providing communities with connectivity, and many emphasised the need for cultural diversity and multilingualism online. I C One speaker suggested that the digital divide is 'much more about content, about ethics; it is about the political will to fill this divide with constructive proposals'.^[2] To avoid creating new divides, it is important that people who speak different languages have equal access to the knowledge available in cyberspace. Cultural diversity and multilingualism not only relate to sustainable development, they are also inherent human rights issues, as no diversity can be created without media freedom. In addition, it will be important to understand the dimension of cultural diversity of new technologies, such as AI.

The influence of new technology on society is also reflected in the challenge of content regulation. How can propaganda and misinformation be addressed while protecting freedom of speech?

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and norms needed to make the Internet safe for children, and how are they culturally determined? Several speakers cautioned against growing content regulation measures which could infringe on human rights, especially in the context of fake news.

This year's WSIS Forum also highlighted some of the broader societal and ethical issues that have been generated by digital technology. Several issues explored how new technologies can be a 'force for good', 🖸 🖸 and could potentially reduce corruption and bridge socio-economic gaps.

One speaker highlighted that the Internet is a global public good, and should not be subject to proprietary interests, 2 while another suggested that digital technology



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may even lead us to 'a new kind of civilisation'.[2] With the Internet's profound impact on society, it has inevitable consequences for ethics, identity, and trust.[2] Despite the many opportunities of the Internet, some raised concerns about the perceived anxiety, fear, and mistrust related to digital technologies.[2] While trust is an essential social value, how can it be created in an 'age of algorithms', affecting human agency, identity, and emotions?[2]

Several solutions were proposed to mitigate this challenge, including blockchain applications, a 'duty of care' on behalf of providers and consumers of digital technology, and a 'code of ethics'; an information society based on universal values, in which humans remain in control of their own social destiny.



Sustainable development cannot be realised without peace and security; and peace and security will be at risk without sustainable development. Cybersecurity today is not just a question of technology; it has become an integral part of policy, as well as of business. If ICTs therefore play a crucial role in the SDGs and should be used to improve all aspects of our lives, yet we need to be equally aware of the challenges and risks they also carry.

In 2018, such risks include cyber extortion, digital reputation, critical information infrastructure, ransomware, cyber threats to banks, data localisation, compliance, blockchain, and issues of cyber sovereignty.^[2] If a system is not secure, privacy is also endangered. Companies and governments can extract information on large numbers of people.^[2] There are also risks associated with the use of industrial Internet and smart vehicles,^[2] the rise of smart cities,^[2] Al and its potential weaponisation,^[2] as well as gaps in normative and security frameworks regulating the use of blockchain technology.^[2]

To face such challenges, capacity building is crucial, especially cybersecurity education. C Children should be taught about online safety from an early age; a code of conduct similar to that of 'women and children first' should be extended to the cyberworld.

Capacity building should not target only the younger generation, as young people often bring skills and abilities that their superiors lack.^[2] Awareness raising among senior management will ensure that the resources necessary for maintaining security are provided.^[2] In short, there is a need to

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A THEMATI(SUMMARY

STU(K ON AN A(RONYM?

This glossary will help you navigate the digital policy parlance.

AI	Artificial intelligence
APEC	Asia-Pacific Economic Cooperation
AS	Autonomous systems
СОР	Child Online Protection
GDPR	General Data Protection Regulation
GSMA	GSM Association
ICANN	Internet Corporation for Assigned Names and Numbers
ICTs	Information and communications technologies
IGF	Internet Governance Forum
IGO	Intergovernmental organisation
ΙοΤ	Internet of Things
IP	Intellectual property
ΙΤυ	International Telecommunication Union
IXP	Internet Exchange Point
MLATs	Mutual Legal Assistance Treaties
MSMEs	Micro, small, and medium enterprises
OECD	Organisation for Economic Co-operation and Development
PPPs	Public-private partnershipsa
SDGs	Sustainable development goals
SMEs	Small and medium enterprises
UNGA	United Nations General Assembly
wsis	World Summit on the Information Society



strengthen digital literacy – a holistic set of knowledge and skills that allows users and organisations to fully capture the potential of digital technology. Alongside ICT skills, this also requires critical thinking, teamwork, interpersonal and intercultural skills, and the willingness to acquire new ones.

Building confidence and security in the use of ICTs is another top priority^[2] to be approached as a multidisciplinary, two-sided process.^[2]

How this is to be done in practice remains open. There is general agreement that close engagement of various public and private actors is necessary^[2] and that globally accepted minimal standards should be established.^[2] However, the need to develop new cybersecurity treaties is still questioned.^[2]

Such standards can be established through top-down approaches through the UN or initiatives similar to the Geneva Convention; or bottom-up, through collaborative approaches from community members. The Standards should be based on a cybersecurity posture assessment, multistakeholderism and private-public partnerships, models for measuring capabilities, and responsible innovation, taking into account lessons learned.

Unless an inclusive society is created, in a trusted, safe, and secure ICT world for all, the SDGs of the 2030 Agenda will not be achieved.



That the topic of human rights has become a pervasive and important part of each issue is evident in the fact that sessions were not dedicated specifically to human rights, but rather incorporated these universal themes into each topic, recognising the importance of supporting human rights with ICTs, while protecting them from possible challenges inherent in new technologies. Awareness raising for fostering rights and inclusion was also an overarching point throughout the WSIS sessions.

It was noted that intellectual property (IP), an important area of protection for the rights of creators, refers to 'creations of the mind' such as inventions, artistic work, and designs, as the idea of IP has evolved from ownership rights to copyright, patents, and trademarks, in addition to economic rights.

While gender rights were not directly addressed as such, the work and progress of women figured prominently in different workshops that highlighted the work of women, from women as entrepreneurs, underlining that ICTs can promote gender equality and the importance of learning from and overcoming failure^[2] to the need to include more women in decision-making processes, especially at higher levels.^[2] Journeys of women technopreneurs also recounted the challenges and successes of women building an inclusive environment for women to work and study^[2] as well as best practices and their impact on sustainable development supported by women-owned businesses.

Data protection and privacy were discussed, especially in light of the European Union's General Data Protection Regulation (GDPR) with implications for rights in the rest of the world as well, for with examples from ICANN and the WHOIS service.

Privacy issues were also highlighted in relation to the free flow of data, and the importance of awareness when personal data is seen as an inevitable trade-off for the use of free services, often without giving appropriate value to the personal data affected by this process.

Other sessions touched tangentially on Internet access, not only as a right, but as a basic need, in some cases highlighting new technologies, like community networks, to improve access.

Child safety and protection was a recurring, overarching theme, requiring the work of different stakeholders to create a child online protection ecosystem highlighting the work of different actors such as the ITU's Child Online Protection (COP) initiative and the WSIS prizes champion KOVA project, and within priorities such as how content is provided and promoted, openness, and access and control mechanisms.





While legal issues are not usually as prominent as other issues, they nonetheless underpin the framework of many areas related to infrastructure, development, and the economy.

At this year's forum, three main legal issues were discussed. The first related to the rise in cybercrime and the need for a harmonised approach to cyberlaw based on common globally accepted minimal principles. Speakers argued that such an approach would help balance conflicting values, such as national interests and the protection and preservation of individual liberties. The rise in cybercrime also mandated a more proactive and responsive approach to investigation and prosecution, in which the current system of Mutual Legal Assistance Treaties (MLATs) needs to give way to more cogent effective remedies.

In today's data economy, the concentration of providers of Internet services is leading to abuse of dominant positions in some cases. Traditional areas such as anti-trust law and taxation are not necessarily adequate considering the global reach and expansion of the Internet indus-

> try. In addition, the data models of Internet companies raise many questions. Beyond the issue of whether data

Rapid technological changes should not exacerbate the digital divides or create new divides.

should flow freely, are users fairly compensated for the data they are parting from? Is data exchange inevitable for users to have access to the services they want or need?

The rapid emergence of new technology impacts the labour market in different ways. Referring to recent studies which have said that as much as two-thirds of the labour market will be susceptible to automation, speakers raised concern about the impact on vulnerable groups. Rapid technological changes should not exacerbate the digital divides or create new divides. The lifespan of jobs is becoming much shorter. Employees are required to train and re-train for new skills in order to be competitive in the labour market.

Although discussions on technology and labour typically address ways in which the labour sector should prepare itself for the changes, there are also many ethical considerations for the industry. Tackling transparency issues with big data and ensuring the wellbeing of the workforce were among the considerations.

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WHAT'S NEXT?

Now that WSIS Forum 2018 is behind us for another year, what's next? From the G7 Summit in June, to the ITU Plenipotentiary Conference in November, many events will touch on the issues we have mentioned here. Mark the following main events on your schedule.



Into digital policy? Tens of events every month discuss the broad digital policy issues. Some zoom into specific themes. Take a look at all the events, and sign up for reminders: https://dig.watch/events

About this report

This report, prepared by the Geneva Internet Platform (GIP), summarises the themes discussed during the 2018 WSIS Forum. It is the culmination of a just-in-time reporting initiative, in which summaries of most sessions were published on the Digital Watch observatory, and shared with the wider community, within hours of the end of each session. The initiative was supported by the Internet Corporation for Assigned Names and Numbers (ICANN) and the Internet Society. Behind this initiative was a team of over 30 experts from around the world, who followed every discussion, and contributed through reports and further analysis, using DiploFoundation's taxonomy of issues. For the GIP, this represents a contribution to SDG target 16, by bringing the discussions closer to the communities that need to participate in the process and strengthening the participation of experts from around the globe in the institutions of global governance.

Read our reports from all the WSIS Forum sessions at <u>dig.watch/wsisforum2018</u>

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