

**UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY
FOR DEVELOPMENT (CSTD)**

**Contribution to the CSTD ten-year review of the implementation of WSIS
outcomes**

Submitted by

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Questionnaire for the CSTD's ten year review of WSIS

In its resolution E/2013/9, the United Nations Economic and Social Council (ECOSOC) requested the Commission on Science and Technology for Development (CSTD) to collect inputs from all facilitators and stakeholders concerning progress made in the implementation of WSIS outcomes. The ECOSOC also requested the Commission to submit, after its eighteenth session, the results of its 10-year review of progress made in the implementation of the outcomes of the World Summit, through the Council, to the General Assembly as it makes an overall review of the implementation of the outcomes of the World Summit in 2015.

*Following the request by the ECOSOC, the CSTD invites all stakeholders to share their experiences, views and priorities on progress made in the implementation of WSIS outcomes at regional and international levels by submitting contributions through the questionnaire below or by email to the CSTD Secretariat at cstd-wsis10@unctad.org, by **15 September 2014**. All contributions will be made available on this website in their original language for consideration by the Commission unless contributors specifically request that their contributions should not be published. Stakeholders are also invited to submit any reports, publications or other documents which they consider provide useful evidence for the review.*

This questionnaire is open to all stakeholders.

Please share your experience, views and priorities in response to the following questions, addressing the issues that you consider most important for the CSTD's ten-year WSIS review. Issues that you might consider could include any or more of the following, but need not be confined to these:

- *infrastructure, access and inclusiveness;*
- *content, applications and capacity-building;*
- *technical, financial and related issues;*
- *governance and wider public policy aspects of the Information Society;*
- *social, economic and other development activities and impacts;*
- *the implications of new trends in technology and services;*
- *measurement and monitoring of the Information Society; and*
- *the relationship between the Information Society, sustainable development and the Post-2015 Development Agenda.*

1. To what extent, in your experience, has the "people-centred, inclusive and development-oriented Information Society", envisaged in the opening paragraph of the WSIS Geneva Declaration of Principles, developed in the ten years since WSIS?

The ten years since WSIS have seen substantial progress in the development of a "people-centred, inclusive and development-oriented Information Society".

Progress has been particularly noticeable in the developing countries, where the "mobile revolution" has enabled all segments of the society to benefit from applications and services facilitated by ICTs. The International Development Research Council (IDRC) has demonstrated the [contribution of mobile phones in various domains of development such as employment, health, education and governance](#). For example, in some countries in Asia, mobile-based distance education initiatives [contributed to better academic gains in both formal and informal sectors](#). The positive socioeconomic impact of various mobile-based applications such as M-Pesa mobile banking in Kenya or crowd-sourcing platforms like Ushahidi are also well-known.

There is however a new divide emerging between those countries and regions with broadband connectivity and the capacity to take advantage of the data-centric tools and applications and those that don't. This divide – [particularly striking between Global North and Global South](#) – is a key barrier for future economic growth and social advancements in health, education and other domains.

In addition, more work is needed to ensure that people's rights and fundamental freedoms—including the right to seek, receive, and disseminate ideas and information—are protected and upheld. These freedoms are closely tied to the attainment of development goals, and yet are under threat in a number of developing countries. More work is also needed to preserve the multi-stakeholder Internet governance model and to ensure that civil society has a voice in Internet public policy debates that affects their lives.

2. How far do you consider the implementation of specific WSIS outcomes to have been achieved?

The role of governments and all stakeholders in the promotion of ICTs for development: The private sector has played an important role in promoting connectivity, and can also help overcome funding impediments. Governments in developing countries also need to actively promote the creation of innovation hubs, such as [iHub in Kenya](#) which can potentially have a far-reaching impact on entrepreneurship and inclusion. The Internet Governance Forum (IGF) has provided a venue for global multistakeholder dialogue and cooperation on a range of Internet public policy issues, including in the promotion of ICTs for development.

Building confidence and security in the use of ICTs: There has been extensive research and development by the private sector and technical community to improve the security of ICTs, particularly as mobile phones and cloud computing are adopted more widely. Awareness of security

issues and best practices could be enhanced through networks of organizations and individuals that use evidenced-based research for policy advocacy to ensure and promote a secure and open Internet (see for example, the [Cyber Stewards Network](#)). Capacity-building efforts in developing countries remain important. The private sector also has an important role in embracing transparency and accountability in the management and protection of personal data.

Media: As the Internet becomes more widespread, more and more people in the developing world are able to access news and information online. Over the last decade, the Internet has also facilitated an increase in citizen journalism, and empowered individuals to disseminate and share ideas and information in new ways. At the same time, restrictions on the press and online expression (including a variety of self-censorship requirements and intermediary liability rules) threaten to undermine progress in this area. Further work is needed to support an independent and pluralistic media.

Ethical dimensions of the Information Society: While the rapid expansion of the internet has created new spaces in which human rights could be exercised, it has also created new means by which human rights could be violated. This has led to a debate on rights on the basis of ethics and values. More needs to be done, by governments and civil society alike, to articulate these ethical dilemmas and develop balanced approaches to their management.

International and regional cooperation : Governments, in addition to being a key driver behind pro-poor ICT policies, must work together to undertake initiatives that promote transparency and defend the rights of citizens in cyberspace. The [Open Government Partnership](#), a global multi-stakeholder platform to make governments more open, accountable, and responsive to citizens, is a good example of such cooperation. Academic and other civil society groups such as the [Global Commission on the Future of Internet Governance](#) also offers a platform to articulate and advance a strategic vision for the future of Internet governance through research and suggest concrete policy recommendations.

Another area where global cooperation is particularly important is connecting research and education networks (RENs). Many government in Africa have come together to create regional networks such as [Ubuntu Net Alliance](#) and [West and Central African Research and Education Network](#). These networks would benefit immensely through connecting to RENs in European and other regions.

3. How has the implementation of WSIS outcomes contributed towards the development of a "people-centred, inclusive and development-oriented Information Society"?

Significant progress has been made in terms of ensuring access to ICTs. First order digital divide issues have been addressed though [social and technical innovations](#) like ISPs, VSATs, telecentres, etc. Subsequently, [policy and regulation improvements](#) helped significantly to boost ICT access and usage through gradually introducing competition in the telecommunications sector, creating an independent and capable regulator, and streamlining regulatory mechanisms.

ICT applications have played a critical role in development, for example in agriculture, health, education and governance. For the most part, the ICT-based development processes have been inclusive. Most notably, ICTs had a bigger impact on the poor compared to more affluent groups in the developing

world. Research has shown that access to ICTs cannot be a solution to poverty in and of itself, but [can be adopted as a tool for poverty reduction initiatives](#).

4. What are the challenges to the implementation of WSIS outcomes? What are the challenges that have inhibited the emergence of a "people-centred, inclusive and development-oriented Information Society"?

Access to broadband: Although much progress has been made in terms of ensuring access to ICTs, notably through mobile phones, access to reliable and high-speed broadband services continues to be a challenge in many developing countries. Access to broadband, and to computers and computing capacity, are needed for societies to derive maximum benefits from ICTs.

Reliable Energy Infrastructure: The use of ICTs, whether through broadband or mobile platforms, depends on having a reliable infrastructure for the generation and distribution of electrical power. Improvements in this infrastructure need to be pursued hand-in-hand with efforts to expand broadband and mobile Internet access.

Content creation: Developing countries are lagging behind in the creation of content that is locally produced and relevant to the local needs and circumstances.

Capacity building: Although the number of ICT practitioners, policy-makers, network engineers, and technologists has increased rapidly in the last ten years, especially in countries like Kenya, South Africa, Indonesia and Brazil, the demand for such capacity is rising further. Moreover, the capacity in the emerging field of data science is quite limited in developing countries.

Regulatory challenges: As countries and communities increasingly become "information societies" and reap the benefits of information-led society, the complexities of designing appropriate policy regimes in key areas become more urgent, as these frameworks are critical in enabling and encouraging the development and use of ICTs. As a starting point, policy and regulatory frameworks should be fair, transparent and non-discriminatory.

As more personal data is entrusted to Internet and technologies companies, governments and other stakeholders are grappling with how best to protect security and citizens' rights to privacy in a manner that also supports human rights, openness and innovation. Yet there is a dearth of evidence and capacity to design appropriate policies that addresses these tensions.

Human rights: The Geneva Declaration of Principles affirms that everyone has the right to freedom of opinion and expression, including the right to hold opinions without interference and to seek, receive and impart information and ideas through any media regardless of frontiers. Moreover, the Human Rights Council has affirmed that human rights apply equally online and offline. Despite these commitments, international human rights monitors have reported an increase in the use by governments of Internet and telecommunications technologies to restrict freedom of expression and to monitor and punish political dissent. These restrictions, and the threat of imprisonment or punishment

for online activities, can deter citizens from taking full advantage of information and communication technologies. The growing prevalence of laws circumscribing citizens' online activities, and mounting arrests and prosecutions of social media users, bloggers and dissidents, also points to the need for better training and awareness among legislators and judicial authorities of the human rights dimensions of the Internet.

5. How are these challenges being addressed? What approaches have proved to be effective in your experience?

Access to broadband: Increasing access to ICTs depends on greater public and private investments in the sector. There is a need for research that generates evidence on appropriate regulatory and policy regimes to ensure that investments are effective in terms of spurring economic growth, innovation and contributing to socio-economic development. It is worth noting that the "mobile revolution" was made possible by an enabling legal and regulatory environment and other policies that helped spur investments.

Capacity building: Adopting long-term approaches to capacity building that enable local policy leaders and researchers to emerge at universities, think tanks and governments.

Balancing benefits and rights: Formulating appropriate policies that respond to complex issues such as the intersections between human rights and security/transparency. This entails the emergence of a group of policy leaders and intellectuals who are able to not only understand the complexities of the issues of "information society", but also suggest measures to mitigate its ensuing risks and challenges.

Human Rights: Increased public awareness of Internet censorship and effective cooperation among diverse stakeholders has helped slow the spread of restrictive laws and policies online. In some instances, Internet users and civil society groups have successfully pressured legislators to reconsider laws that would have hindered freedom of expression. Civic activists have also made use of the Internet to bring greater attention and awareness to other human rights-related issues, women's rights, or environmental causes, and have used it to call for more transparency and accountability from government.

The private sector also has a role to play by adopting transparent policies and upholding the rights of users. The Global Network Initiative—whose membership includes major technology companies, human rights organizations, investors and academics—provides direction and guidance to the ICT industry to protect and advance the enjoyment of human rights, and encourages multistakeholder collaboration. The Freedom Online Coalition similarly provides a platform for governments to work together in defence of human rights and freedom online.

6. What do you consider the most important emerging trends in technology and other aspects of ICTs which have affected implementation of WSIS outcomes since the Summit? What has been their impact?

Most of the issues reflected in the original WSIS Action Lines remain relevant today. However, changing technology and global trends will require that stakeholders take new approaches to find solutions to these challenges through collaboration and coordination.

The open movement: Several open initiatives have strengthened civil democracy on the Internet, as well as opportunities for learning, scientific collaboration, and free enterprise. For example, the open government movement calls for a more transparent, accessible, and responsive government, advocating for more freely available and reusable online data in areas such as health, education, procurement, and transport. Other open initiatives are in education (open educational resources), open science (making scientific research more publicly available, providing data and findings for free reuse) and open business models (enabling entrepreneurs to generate revenue through free and openly licensed content).

The role of social media: For many people in the developing world, the Internet and social media are one and the same. Facebook has more users in developing countries than in the developed world. Given the trend of increasing use of social media in developing countries, further research is needed to shed light into the how social media can be harnessed for social and democratic development.

Harnessing the crowd: In the last few years, the use of crowdsourcing to address development challenges has been increasing. Platforms such as Ushahidi illustrate how open calls can elicit a response to humanitarian crises, corruption, or electoral fraud.

7. What should be the priorities for stakeholders seeking to achieve WSIS outcomes and progress towards the Information Society, taking into account emerging trends?

Education: Research on the relationship between ICTs and poverty reduction shows that having a mobile phone increases social capital and can lead directly to employment or other economic opportunities. However, the income generation enabled through the use of ICTs increases in proportion to education. This underscores the broader role of education, including at the primary and secondary level, in poverty reduction.

Support for marginalized communities: Although ICTs have promoted increased social connection, there are also new risks of exclusion. People who lack broadband access to the Internet or a mobile device have difficulty reaping the benefits of data-driven services. Women and the disabled, traditionally on the margins of the digital world, will likely be most at risk of exclusion, and addressing this aspect of the digital divide will remain a priority area. With technology increasingly important in all facets of society, much more needs to be learned about how information networks affect socio-economic inclusion.

This also applies to Internet governance: by 2017, over a billion new Internet users are expected to come online, with the vast majority connecting via mobile devices in the global south. It will be important to ensure that these new Internet users are able to contribute and influence outcomes as part of the multistakeholder decision-making processes at the relevant institutions, including those in place to address Internet technical matters.

Enabling environment: In order to maximise the benefits that ICTs can bring, there are a variety of mediating factors that need to be taken into account. These include social and cultural conditions (e.g. women being empowered to access and use technologies); adequate education and digital literacy skills; an enabling regulatory environment and market liberalization to encourage competition; and respect for human rights and rule of law. Interventions by development actors, including the private sector, should consider these factors in a longer-term engagement in ICT investment.

Building trust and confidence: Trust is an important prerequisite to being able to capitalize on the opportunities offered by Internet technologies. All stakeholders have a role in building trust and confidence in the use of ICTs, including through the promotion of digital literacy; sharing of best practices in cyber security; and, in the case of the private sector, embracing greater transparency and accountability in the management of personal data.

Preserving a globally interoperable internet: All stakeholders, and especially governments, must work together to preserve an unfragmented and globally interoperable Internet. Restrictive policies, including censorship and rules that would charge content providers to reach Internet users, can impede innovation, growth, and free expression, whereas an open and interoperable Internet brings economic and social benefits to all.

Protecting human rights: Increased Internet connectivity has been used in some contexts to further practices of government surveillance and censorship, at the cost of various human rights such as freedom of expression. Embracing more effective multistakeholder involvement at all levels is one way to help ensure that human rights and fundamental freedoms are protected online.

8. What role should information and communications play in the implementation of the post-2015 development agenda?

Although connectivity and adoption of ICTs is not in itself a development goal, greater access to ICTs has facilitated and supported the achievement of MDGs. Countries and regions can take advantage of the information and data revolution to only solve complex social problems, achieve educational objectives, improve the delivery of healthcare, and spur new business and employment opportunities. ICTs are also a key enabler of social and economic inclusion of the marginalized groups such as the poor, women and youth.

9. Please add any other comments that you wish to make on the subject of the review that you believe would be helpful.

Canada has put in place a number of initiatives to implement the WSIS outcomes, both at the national level and in support of international efforts:

National-level efforts

Canada recently released the Digital Canada 150 strategy which is a plan to guide Canada's digital future. It is built on five pillars: Connecting Canadians; Protecting Canadians; Economic Opportunities; Digital Government; and Canadian Content.

Digital Canada 150 includes a number of initiatives to support a thriving digital economy:

- Over 99 percent of Canadian households currently have access to Internet with speeds of 1.5 Mbps. 91% have access to speed of 5Mbps or faster, and the government has invested \$305 million to increase that number up to 98 percent by 2017. This will provide rural and remote communities with access to faster, more reliable online services.
- Canada has increased its support to the Canada Accelerator and Incubator Program to \$100 million to help digital entrepreneurs take the next step in developing their businesses.

Canada has taken steps to increase confidence in the online marketplace. In particular, the Government has passed world-leading anti-spam law to protect Canadians from spam and malicious online threats, and strengthened the Personal Information Protection and Electronic Documents Act to better protect the online privacy of all Canadians.

- Canada has also enacted amendments to intellectual property laws, including the Patent Act, Trade-marks Act and Industrial Design Act to harmonize with key international treaties.
- The Business Development Bank of Canada (BDC) will allocate an additional \$200 million to support small and medium-sized businesses with digital technology adoption. The BDC will also invest an additional \$300 million in venture capital for companies in the information and communications technologies sector.

International efforts:

At the international level, Canada put in place a number of initiatives to incorporate information and communication technologies (ICTs) into the advancement of development priorities, reaching priorities identified under WSIS, New Partnership for Africa's Development (NEPAD) and the Millennium Development Goals (MDG).

At the Kananaskis Summit in 2002, Canada launched a series of national initiatives in support of NEPAD and the G8 Africa Action Plan. This included a CAD \$35 million commitment to three initiatives which supported African efforts to make use of ICTs to accelerate economic and social growth, to enhance access to education, and to improve the provision of services to poor communities across the continent:

- the e-Policy Resource Network for Africa, which helped countries develop strategies, policies and regulations relating to the ICT sector, and which linked African partners through a centre located at the Economic Commission for Africa, in Addis Ababa;
- The Connectivity Africa initiative, which supported research and development and innovative uses of ICTs, particularly in education, health, and economic and community development, and which involved a number of African partners along with Canada's International Development Research Centre and the Open Knowledge Network; and
- The Enblis entrepreneurial network, a not-for-profit initiative led by the Canadian private sector, which supported small and medium-sized African enterprises in their application of ICTs.

In addition to the above initiatives, Canada has supported the application of ICTs in developing economies, most notably to improve educational outcomes, address democratic deficits, mitigate environmental disasters and achieve health outcomes.

As *La Francophonie's* second largest contributor, Canada has also actively participated in ICT for development programs. For example, Canada supports *La Francophonie's* network of *Maisons des savoirs* which offers various cultural and educational activities to the local populations. Canada also finances *La Francophonie's Initiative francophone pour la formation à distance des maîtres*. This innovative tool offers a hybrid of online and on-site training for primary school teachers with a strong ICT component. Apart from its annual contribution to *La Francophonie*, Canada also provides specific funding of CAD \$500,000 per year (in addition to the Government of Québec's contribution of CAD \$550,000 per year) for the *Fonds francophone des Inforoutes*. Through Internet-based projects in *La Francophonie* in Member States that focus on the development of ICT content, applications and skills, the Fund aims to contribute to the increased adoption of ICTs by civil society and local governments.