



**SUBMISSION BY INTERNET SOCIETY CANADA CHAPTER IN THE  
GLOBAL AFFAIRS CANADA  
*CANADIAN INTERNATIONAL ASSISTANCE REVIEW CONSULTATIONS*  
29 JULY 2016**

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## **1.0 Introduction**

1. Internet Society, Canada Chapter<sup>1</sup> (“ISCC”) is hereby making its submission in the consultation being held by Global Affairs Canada (“GAC”) on the future of Canada’s international assistance program. ISCC is a volunteer association that seeks to advance the cause of the Internet in Canada. ISCC is a chapter of the international Internet Society<sup>2</sup> (“ISOC”), which is a non-governmental organization (“NGO”) that “engages in a wide spectrum of Internet issues, including policy, governance, technology, and development.”<sup>3</sup> Some of ISOC’s work, in which the ISCC participates and that it supports, includes:

- “Championing public policies that enable open access;
- Facilitating the open development of standards, protocols, administration, and the technical infrastructure of the Internet;
- Organizing events and opportunities that bring people together to share insights and opinions.”<sup>4</sup>

A complete list of ISOC’s mission can be found at <http://www.internetsociety.org/who-we-are/mission>.

2. ISOC and ISCC have paid close attention to the development of the *2030 Agenda for Sustainable Development* (“2030 Agenda”) by the United Nations (“UN”). Both entities wholeheartedly support the UN’s ambitious agenda. However, ISOC and ISCC are concerned that when the 2030 Agenda was drafted that insufficient attention was paid to the catalytic role that the Internet and information and communication technologies<sup>5</sup> (“ICTs”) can and will play in the achievement of the sustainable development goals (“SDGs”) contained in the 2030 Agenda. As a result, ISOC prepared a detailed report (“ISOC report”) on the role of the Internet and ICTs in achieving the SDGs.<sup>6</sup> ISCC has attached the ISOC report in the Appendix to this submission.

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<sup>1</sup> Internet Society, Canada Chapter, “ISOC Canada”, <<http://www.internetsociety.ca/>>.

<sup>2</sup> Internet Society, “Internet Society”, <<http://www.internetsociety.org/>>.

<sup>3</sup> Internet Society, “What We Do”, <<http://www.internetsociety.org/what-we-do>>.

<sup>4</sup> *Ibid.*

<sup>5</sup> There is no universal definition of information and communication technologies (“ICTs”), however, generally speaking, ICTs technologies include any type of technology that enables users to access, store, transmit, and manipulate information. Examples include smartphones, computers, servers, and much more. See <[https://en.wikipedia.org/wiki/Information\\_and\\_communications\\_technology](https://en.wikipedia.org/wiki/Information_and_communications_technology)>.

<sup>6</sup> Internet Society, “The Internet and Sustainable Development”, June 2015, <<http://www.internetsociety.org/sites/default/files/ISOC-ICTs-SDGs-201506-1.pdf>> [“ISOC Report”].

3. ISCC applauds GAC for undertaking a consultation on the future of Canada's international assistance program. ISCC is also pleased to note several references in the Discussion Paper<sup>7</sup> provided by GAC ("Discussion Paper") to the positive impact that technology, and in particular ICTs, can have on achieving Canada's international assistance goals. However, as with the 2030 Agenda, ISCC notes that there is no section in the Discussion Paper that deals explicitly with the role that the Internet and ICTs can play in international assistance.

4. ISCC's focus in this submission is on how the Internet and ICTs can improve the effectiveness and efficiency of Canada's international assistance program. This corresponds most closely to the issues raised in the "Delivering Results" section of the Discussion Paper.<sup>8</sup>

5. ISCC's positions in this consultation are derived from a conference it held in Ottawa on July 18, 2016 to discuss the role of the Internet and ICTs in international assistance. Individuals from a variety of backgrounds attended the conference both in-person and remotely from across Canada.

6. The Internet and ICTs have a vital role to play in improving the efficiency and effectiveness of Canada's international assistance program. There are two broad areas in which the power of the Internet and ICTs should be harnessed to improve the efficiency and effectiveness of Canada's international assistance program. Firstly, GAC itself, as well as the entities with which it partners in delivering international assistance, need to harness the power of ICTs and the Internet at all stages of the development of international assistance programs. Secondly, the digital empowerment of individuals and other entities receiving Canadian international assistance through the use of the Internet and ICTs needs to become a key objective of Canadian international assistance.

7. In addition, ISCC calls upon GAC to initiate a separate consultation that focuses entirely on how the Internet and ICTs can be mobilized to support and improve upon Canada's international assistance program.

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<sup>7</sup> Global Affairs Canada, *International Assistance Review Discussion Paper*, <<http://www.international.gc.ca/world-monde/assets/pdfs/iar-consultations-eai-eng.pdf>> ["Discussion Paper"].

<sup>8</sup> *Id.* at pgs 23-25.

## **2.0 GAC needs to make greater use of the Internet and ICTs**

8. The Discussion Paper emphasizes that, given the current fiscal climate, it is not realistic for the Canadian government to reach the UN's target of spending 0.7% of Canada's gross national income on international assistance.<sup>9</sup> As a result, the Discussion Paper states that it is necessary for the Canadian government to focus its efforts and become "best in class" with regard to international assistance innovation and delivery.<sup>10</sup> The Discussion Paper further notes that in order to achieve this "best in class" status, it is necessary for Canada's international assistance to become more transparent, for innovative approaches to be developed, for international assistance programs to be evidence-based, and for multi-stakeholder partnerships to be developed.<sup>11</sup> The Internet and ICTs can help GAC achieve all of these objectives and thus improve the effectiveness and efficiency of Canada's international assistance program.

9. Firstly, with regard to improving transparency, the Internet and ICTs have much to offer. For example, by adopting an open data policy when it comes to Canada's international assistance activities, which would mean that all of the data associated with these programs would be readily accessible on Canadian government websites, the Canadian government will ensure that its international assistance program is transparent. Academics, journalists, and concerned citizens should not have to go through the Access to Information process in order to access data associated with Canada's international assistance activities. This data should be readily accessible to anyone with access to the Internet. This also means that the data should be presented in an accessible file format such as a Microsoft Office Excel spreadsheet.

10. GAC should also strongly encourage foreign states and other entities receiving Canadian international assistance to adopt an open data policy in relation to Canadian international assistance programs. This will ensure that stakeholders are able to get the full picture and study the effectiveness of an international assistance program from both the perspective of the Canadian government and recipients. Of course, privacy safeguards would need to be implemented in order to ensure that individual recipients of international assistance could not be identified, which would

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<sup>9</sup> *Id.* at para 23.

<sup>10</sup> *Ibid.*

<sup>11</sup> *Id.* at pgs 23-25.

be particularly important in some parts of the world where Canada's development efforts may not be appreciated by all elements of a given society.

11. Improving transparency through open data will also help the government achieve its goal of ensuring that its international assistance program is evidence-based. Stakeholders will be able to access this data and rigorously vet it. For example, academics will be able to study the data provided via the Canadian government's websites and determine whether or not the data supports the government's claims or theories as to how the program should be working. This is the power of the Internet and ICTs: to enable anyone, anywhere, to access information.

12. The use of so-called 'big data', massive and complex data sets that require immense computer processing power to store and analyze, will also assist GAC in ensuring that its programs are evidence-based. A completely hypothetical example of the use of big data in the international assistance context could be the collection and monitoring of a variety of economic statistics and indicators in a given region to determine whether a Canadian international assistance program aimed at providing microfinancing to small businesses has generated increased economic activity in the region. The challenge for the GAC will be developing ways to collect and analyze this data, as well as to develop appropriate privacy safeguards while also following an open-data policy. Fortunately, as discussed further below, some of the world's top digital innovators reside in Canada and if GAC reaches out to these innovators to form multi-stakeholder partnerships, anything is possible.

13. The Internet and ICTs are also extremely effective tools for the development of multi-stakeholder partnerships. It seems that GAC is already aware of this as it has taken the positive step of using the Internet to spread the news about this consultation, over social media for example, and to solicit commentary from Canadians. ISCC applauds GAC for its use of the Internet in this regard. However, GAC can go further. When reviewing the commentary provided by Canadians it can use the Internet and ICTs to reach out to parties that it believes have more to offer. For example, it would be a simple matter for GAC to convene a virtual conference of stakeholders interested in tackling malaria regardless of where they are located in Canada, or the world. With the power of video-conferencing doctors studying malaria at Dalhousie University in Halifax can speak to government officials in Ottawa while receiving feedback from their colleagues on the ground in Brazil, all in real-time.

14. An idea that received widespread support at the above-noted conference that ISCC hosted to discuss this consultation was for GAC, or another part of the government, to create an online database where Canadians could register to volunteer their time and expertise to participate in international assistance activities. A few simple algorithms could be designed, after volunteers inputted their skills and availability, to match volunteers with projects. Of course, volunteers would need to be carefully vetted before being deployed abroad, but this is one manner in which the Internet could be harnessed to create new multi-stakeholder partnerships in the area of international development. ISCC believes that this ‘Digital Peace Corps’ would be particularly popular with Canadian students and retirees, who have so much to offer the world but who often have trouble finding opportunities to put their skills to use. Canada is blessed with an extremely educated population and many citizens, from engineering students, to veterans, to former politicians would have much to contribute to international assistance programs if that data could be consolidated into one place and then matched with the needs of Canada’s international assistance efforts. The Internet and ICTs can enable this.

15. Ultimately, when it comes to creating partnerships, the Internet and ICTs are all about connecting people and, if GAC embraces this strength, GAC’s ability to craft multi-stakeholder partnerships for international assistance programs will be greatly enhanced.

16. As for developing innovative approaches to the delivery of international assistance, when it comes to the powers of the Internet and ICTs, there really is no limit to what is possible. ISCC is keenly aware of the revolutionary capabilities of the Internet and ICTs to improve the state of the world. In this regard, ISCC knows that Canada is home to some of the world’s most innovative high tech companies, universities, entrepreneurs, academics, and citizens and that the GAC should reach out to these entities to create multi-stakeholder partnerships that seek not only to apply digital innovation to existing methods of delivering international assistance, but also to innovate entirely new methods of delivering such assistance.

17. Overall, ISCC notes that in the 21<sup>st</sup> century, it is trite to speak of the transformative power of the Internet and ICTs. These technologies have impacted almost every aspect of daily life in Canada. We urge GAC to examine every aspect of its operations and to see whether a digital lens can be applied to it. In doing so, we further advise that the GAC reach out to ISCC and other digital stakeholders to ensure that any digital innovation related to the delivery of Canadian

international assistance is developed using best practices for the application of the Internet and ICTs.

### **3.0 Digital empowerment needs to be a priority of Canada's international assistance efforts**

18. Aside from the Government of Canada harnessing the Internet and ICTs, the other area in which these technologies can be used to improve the efficiency and effectiveness of Canada's international assistance efforts is by actually digitally empowering the recipients of Canada's international assistance. In 2016 we are in the midst of a Third Industrial Revolution, the Digital Revolution, which will shape the course of the 21<sup>st</sup> century and beyond. Increasingly, the economy is moving online. Whereas the economic drivers of the 20<sup>th</sup> century were corporations such as Standard Oil and Ford, the economic drivers of the 21<sup>st</sup> century will be corporations such as Apple, Google, and Facebook.

19. Unfortunately, much of the world will miss out on participating in the economy of the 21<sup>st</sup> century unless the digital divide is addressed. The ISOC Report notes that recent estimates suggest that less than 10% of people in Least Developed Countries access the Internet versus more than 80% in developed countries.<sup>12</sup> Addressing this gap and enabling the full participation of all people in the digital economy is a pressing international assistance need. Of course, addressing the digital divide is also an issue in our own country, where serious disparities in the availability of the Internet and ICTs exist between large urban centres and rural and Aboriginal areas.

20. Digitally empowering the world will not be an easy task, and Canada cannot do it alone, but any gains we can make will provide exponential returns. As GAC itself noted in the Discussion Paper, just a few of the possible applications of the Internet and ICTs include farmers being able to research weather patterns and market prices for their crops, women being able to access health information, and citizens mobilizing against dictators and authoritarian regimes.<sup>13</sup> The virtualization of goods and the efficiencies derived from greater use of the Internet and ICTs can contribute to the reduction of greenhouse gases.<sup>14</sup> A participant in ISCC's conference also described how Vancouver's Street Messaging System sends SMS messages with vital information

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<sup>12</sup> ISOC Report, *supra* note 5, at pg 6.

<sup>13</sup> Discussion Paper, *supra* note 6, at pg 4.

<sup>14</sup> ISOC Report, *supra* note 5, at pg 7.

concerning shelter, food, health, and jobs/training to the mobile phones of vulnerable and homeless populations in the city and suggested that this system would also be useful in refugee camps.<sup>15</sup> This participant noted that even homeless and marginalized populations can have a significant level of access to mobile phones. These are just a few examples of the benefits that can come from digital empowerment.

21. Connecting the world will involve overcoming a number of challenges, including establishing reliable and resilient connectivity, affordability issues in regions where the daily wage is a few dollars or less, creating a legal and regulatory environment that encourages innovation, providing content and applications in an accessible format, including in a variety of languages, and ensuring that sufficient digital literacy exists such that the Internet and ICTs can be effectively used.<sup>16</sup> ISCC members with experience working on international assistance projects emphasized that in many parts of the world, mobile connectivity, via solar-charged mobile phones, may be the only viable solution for the foreseeable future given that many of the parts of the Least Developed Countries do not even have access to electricity.

22. Another challenge that is becoming increasingly prevalent as time goes on is that ICTs themselves are now “the fastest growing source of physical waste and greenhouse gas (GHG) emissions.”<sup>17</sup> Clearly, work must be done to both reduce the GHG emissions that are emitted in the use of ICTs and the damage caused when technological equipment is discarded. Such equipment is often transported from developed countries to developing countries, where it is too often stored improperly and leaks hazardous substances that have negative impacts on both human health and the environment.<sup>18</sup>

23. ISCC does not have all the answers to these problems at the present time, but, as noted throughout this submission, Canada is home to some of the finest digital innovators and through the creation of multi-stakeholder partnerships, GAC will no doubt be able to find solutions that

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<sup>15</sup> For more information about Vancouver’s Street Messaging System see <https://www.streetmessagingsystem.ca/about>.

<sup>16</sup> *Id.* at pgs 6-7.

<sup>17</sup> *Id.* at pg 7.

<sup>18</sup> For a discussion of the “e-waste” problem, see, for example, United Nations Environment Programme, “E-Waste Management”, <http://www.unep.org/gpwm/FocalAreas/E-WasteManagement/tabid/56458/>.

ensure that the world's poorest and most vulnerable are able to get online and fully participate in the digital economy.

24. Of course, it will also be necessary to work closely with partners on the ground who are actually receiving Canada's international assistance to learn from them the best ways to get their communities connected. ISCC emphasizes that GAC should not allow itself to impose connectivity solutions on Least Developed Countries simply because there may be a lack of formal ICT training in many parts of the country. The individuals on the ground in these countries understand their communities and societies best and must be part of any multi-stakeholder partnerships designed to address the digital divide. As an example of what can be accomplished in the technology sphere by individuals without formal training one ISCC member referred us to an NGO based out of India that trains African women, many of whom are illiterate, to become solar engineers and fabricate and maintain solar panels that electrify their communities and reduce their reliance on polluting kerosene gas.<sup>19</sup>

25. ISCC also notes that digitally empowering Indigenous communities, both in Canada and abroad, will allow for the preservation and strengthening of Indigenous communities. At the conference ISCC held to discuss this consultation members discussed a vision where Indigenous communities in Canada can be digitally connected with communities receiving Canadian international assistance to discuss and share best practices for digital empowerment. The economic opportunities of digital empowerment for Indigenous communities were also discussed at the conference and support was voiced for programs to teach coding skills to individuals in these communities who could then work on programming jobs without being compelled to leave their homes. As a further example of the importance of not dismissing the abilities of local communities when engaging in digital empowerment projects, despite the fact that most of the time many of these communities will lack individuals with formal training in the technology sector, reference was made at ISCC's conference to the inspiring story of the youth in the Ochiichagwe'Babigo'Ining

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<sup>19</sup> Barefoot College, "Woman Barefoot solar engineers a community solution", 4 November 2012, <<http://www.barefootcollege.org/women-barefoot-solar-engineers-a-community-solution/>>.

Ojibway Nation who built their own Internet service provider to bring high-speed Internet to their community when no other providers were willing to step in.<sup>20</sup>

26. ISCC fully believes in multi-stakeholder partnerships when creating digital empowerment projects and rejects a top-down model in which projects are imposed on any entities receiving Canadian international assistance, or, for that matter, any top-down imposition of projects on Canada's Indigenous communities.

27. Overall, ISCC urges GAC to adopt Internet and ICT related projects as a focus of Canada's international assistance. This is an area where Canada can make a value-added contribution to the achievement of the 2030 Agenda given our highly educated and digitally literate society that is home to some of the world's foremost technology companies and other digital innovators. The gains that can be realized from getting individuals online are infinite and will serve as a catalyst for the achievement of many of Canada's international assistance objectives.

#### **4.0 A consultation on digital issues in international assistance should be held**

28. In this submission ISCC has only been able to briefly touch upon the truly revolutionary potential of the widespread adoption of the Internet and ICTs in international assistance. Given the many benefits that can accrue from the use of the Internet and ICTs in international assistance, ISCC recommends that GAC hold a separate consultation that focuses entirely on the role of the Internet and ICTs in international assistance.

29. Such a consultation could draw in some of the many digital innovators noted above that might not have realized the role that they can play in improving the effectiveness and efficiency of Canada's international assistance.

30. In addition, both ISOC and ISCC fully admit that more evidence is needed about the relationship between the Internet and ICTs and sustainable development.<sup>21</sup> ISCC fully supports the government's commitment to evidence-based policy-making and a consultation focused on

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<sup>20</sup> Jordan Pearson, "Bandwidth: How First Nations Kids Built Their Own Internet Infrastructure", 21 August 2015, *Motherboard*, <<http://motherboard.vice.com/read/how-first-nations-kids-built-their-own-internet-infrastructure>>.

<sup>21</sup> ISOC Report, *supra* note 5, at pg 7.

digital issues in international assistance will help all parties develop more effective policies on the use of the Internet and ICTs in international development.

## **5.0 Conclusion**

31. ISCC urges GAC, if it wishes to make Canada's international assistance more effective and efficient, to embrace the Internet and ICTs in all aspects of international assistance. This embrace should include both GAC itself making proficient use of the Internet and ICTs to improve its processes and delivery of international assistance as well as the digital empowerment of recipients of Canadian international assistance.

32. The Internet and ICTs will, if used properly serve as a catalyst for the achievement of the SDGs enumerated in the 2030 Agenda as well as Canada's specific focuses, including empowering women and girls, reducing GHGs, creating multi-stakeholder partnerships, ensuring that Canada's international assistance programs are based on evidence, and much more. ISCC working with other digital stakeholders would be pleased to assist GAC in these and other related areas.

33. ISCC looks forward to reviewing the outcome of this consultation and stands ready to assist GAC and other partners in developing best practices for the use of the Internet and ICTs to improve the effectiveness and efficiency of international assistance.

# **APPENDIX**

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# The Internet and Sustainable Development

An Internet Society contribution to the United Nations discussion on the Sustainable Development Goals and on the 10-year Review of the World Summit on the Information Society

JUNE 2015



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## Overview

The past thirty years have seen tremendous growth in the capabilities and reach of information and communication technologies (ICTs). The Internet, especially, has become a critical enabler of social and economic change, transforming how government, business and citizens interact and offering new ways of addressing development challenges. A new approach to development will be agreed this year, when the United Nations adopts a Post-2015 Development Agenda based around Sustainable Development Goals (SDGs). The Internet Society is convinced that the Internet is a unique platform for innovation, creativity, economic opportunity and social inclusion, which can make a major contribution to achieving these. This briefing describes the Internet's potential and identifies priorities for action.

Since it became widely available in the 1990s, the Internet has enabled new products and services, improved economic efficiency, transformed access to information, and facilitated greater collaboration between governments, businesses and citizens. Its growing impact has been central to the emerging Information Society and digital economy, affecting both developed and developing countries. As many as 40% of the world's people now use the Internet at least occasionally, a proportion that is growing every year.<sup>1</sup> Its development potential was emphasized in the World Summit on the Information Society (WSIS, 2003/2005) and will be further demonstrated when the UN reviews WSIS outcomes in December 2015.<sup>2</sup>

Sustainable development has been a focus of international public policy since the Earth Summit in 1992. It identifies three core objectives for human development – economic growth, social inclusion and environmental sustainability. Only by pursuing these together can the world achieve 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'<sup>3</sup> In September 2015, a UN summit will place Sustainable Development Goals (SDGs) at the heart of its Post-2015 Development Agenda, which will guide development until 2030.

The Internet Society has worked steadfastly to promote ICTs in development since it was formed in 1992. It believes the Internet will be a critical enabler for sustainable development which will unlock human capabilities,<sup>4</sup> and is committed to working with multistakeholder partners to integrate the Information Society with sustainable development and fulfill the Internet's development potential. This briefing sets out a framework for multistakeholder partnership towards that end.

## The context for sustainable development

The adoption of Sustainable Development Goals in September 2015 will mark the start of a new era in international development.

In 2000, the United Nations adopted eight Millennium Development Goals (MDGs), which set targets to reduce poverty and secure basic needs such as food, water, health and education. They also called for public-private cooperation to 'make available the benefits of new technologies, especially ICTs.'<sup>5</sup> The contribution of ICTs towards the MDGs has grown over the years as they have become more widespread in developing countries. They have made important contributions in enabling access to information and educational resources, improving food production and distribution, facilitating participation in decision-making, and ensuring early warning of threats to vulnerable communities.

The target date for achieving the MDGs, 2015, has become the start date for a new phase of international action for sustainable development. This recognizes the importance of integrating economic, social and environmental goals within a comprehensive global approach over the fifteen years to 2030.

Seventeen proposed Sustainable Development Goals, and 169 targets, have been developed through an intergovernmental Open Working Group (OWG) of the United Nations.<sup>6</sup> Final agreement on these will be reached at a UN Summit in September 2015.<sup>7</sup> While each Goal is important individually, the success of the overall Agenda will depend on the extent to which they are achieved together. The Goals provide an opportunity for enhancing the role of ICTs as cross-cutting enablers of development across the whole Post-2015 Agenda.

## ICTs, the Internet and SDGs

Assessments of WSIS outcomes have demonstrated the value of ICTs and the Internet to development, in underpinning infrastructure for economic and social progress and providing tools for programmes in sectors such as health, finance and education. That value has grown with time because of rapid improvements in technology, increased bandwidth, and new services like social media and cloud computing. It will continue to grow dynamically as ICTs' capabilities and reach extend further during the implementation period for the SDGs.

The Internet provides the underpinning platform for the growth of ICTs and for an emerging digital economy, in which production, distribution and consumption depend on broadband networks and services. It will, therefore, be a critical enabler of sustainable development.

The Internet Society is concerned, however, that the Internet's importance has not been sufficiently recognized, and that more must be done to integrate the Information Society and sustainable development agendas. Without recognition of ICTs and the Internet, crucial opportunities to achieve developmental goals may be missed.

ISOC is concerned in particular that there is no specific Goal concerned with ICTs or the Internet among the current proposed SDGs. However, one of the proposed targets in Goal 9 (which concerns infrastructure, industrialization and innovation) calls for significantly increased access to information and communications technology and universal and affordable access to the Internet in least developed countries by 2020.<sup>8</sup> Fulfilling this target will be instrumental in addressing many other Goals and targets.

ICTs are specifically mentioned in three further proposed targets, those concerned with ICT enrolment in higher education (target 4.b), women's empowerment (target 5.b) and science, technology and innovation (target 17.8). A number of references to improving information, in other targets, will increasingly depend on ICTs and Internet. The potential of big data is often mentioned in this context.

While these references are important, ISOC believes that more attention should be paid to the Internet's catalytic role in meeting information needs and facilitating development, particularly in sectors such as agriculture, health, education and enterprise. Urgent attention will be required to incorporating ICTs more thoroughly in implementing and monitoring the Goals once these have been finalized.

## How ICTs can facilitate the implementation of the SDGs

ICTs and the Internet have already had a major impact on economic and social development.<sup>9</sup>

- Governments, business, civil society and individuals have adopted them extensively. Mobile telephony, Internet access and social media have transformed communications opportunities for individuals, while governments and businesses increasingly rely on the Internet for communications and administration, delivering services and disseminating information.
- Many governments and development agencies have adopted **strategies to leverage ICTs for development (ICT4D)** and introduced programmes that take advantage of the Internet – stimulating access to information through telecentres and mobile applications; promoting business sectors such as outsourcing and software development; disseminating e-agriculture and e-health information, distance learning and mobile money; and establishing mechanisms to provide early warning of natural and man-made disasters.

These impacts have grown as technology has become more sophisticated, user numbers have risen, more bandwidth has become available, and new services been introduced. Further developments now underway – such as cloud computing and the Internet of Things – mean that ICTs will have even greater impact on development implementation and outcomes over

the next fifteen years. The Internet Society believes this will be especially important in five areas:

- **Sustainable development policy.** Greater integration is needed between the Information Society and sustainable development. Internet and development stakeholders need to build a stronger, and more realistic, understanding of ICTs' potential and the challenges constraining it in difficult development contexts.
- **Implementing sustainable development.** ICTs can support the delivery of every SDG. UN agencies have begun to identify synergies between the SDGs and WSIS Action Lines. Once the Goals are formally agreed, these can be translated into practical measures to support their implementation.
- **Monitoring sustainable development.** ICTs should play a crucial role in monitoring and measuring progress towards sustainable development, by facilitating data-gathering and analysis of indicators adopted for every Goal and target. UN agencies have begun work to identify these indicators. Indicators for ICTs and Internet themselves will be required, building on experience with targets for connectivity agreed at WSIS.
- **Leveraging big data for development.** High hopes have been expressed about big data's potential to improve understanding of development environments, facilitate evidence-based policy-making, and monitor development outcomes.<sup>10</sup> Big data analysis also raises challenges concerning data privacy and security, while governments and other stakeholders will need to build capacity and resources to maximise its value.
- **Sustainable multistakeholder approaches to developments.** ICTs and Internet enable more effective collaboration between development stakeholders and new ways to manage programmes. Cooperation between government, business and other stakeholders is especially important because of the private sector's predominant role in networks and services.

To fulfill these opportunities, the Internet Society believes **it is crucial to build mutual understanding and stronger cooperation between the information society and sustainable development agendas.** This will be even more important after the Summit, as indicators are agreed and implementation strategies devised.

*Internet stakeholders should engage actively in discussions around the SDGs and their subsequent implementation. They should work with development stakeholders to:*

- *build a common understanding of the potential of ICTs to support the overall sustainable development agenda;*

- *develop challenging, realistic assessments of how the Internet can support implementation of each SDG at global, national and local levels - and the constraints that must be overcome to achieve this;*
- *identify appropriate indicators for each SDG, which can be measured effectively with ICT support;*
- *develop techniques that take full advantage of the Internet for monitoring the SDGs, address challenges of data privacy and security, and take advantage of the potential of big data analysis; and*
- *identify ways of improving development administration, including public-private and multistakeholder partnerships.*

## Priorities for Internet stakeholders

ISOC's priorities for multistakeholder cooperation in Internet development are set out in its 2014 Global Internet Report.<sup>11</sup> The sustainable development agenda raises a number of particular challenges and opportunities for Internet governance and multistakeholder cooperation.

- **Connectivity and access for all** are crucial to the Internet's contribution to sustainable development. Although there have been great improvements over the last decade, Internet access is still much poorer in many developing countries than developed countries. Recent estimates suggest that less than 10% of people in Least Developed Countries (LDCs) access the Internet, compared with more than 80% in developed countries. Broadband access is particularly poor in rural areas. This reduces the extent to which people can use the Internet to achieve the SDGs.<sup>12</sup>

Connectivity alone is insufficient to enable effective use of Internet for sustainable development. Other factors are also crucial:

- **Affordability** is essential if development stakeholders and citizens are to use Internet effectively to achieve the SDGs. Internet and broadband access are much more expensive, in relation to average income, in developing countries, particularly LDCs.<sup>13</sup> This makes it especially difficult for poorer individuals and communities to take advantage of Internet-enabled services.
- **Reliability and resilience** are crucial if governments and businesses are to use the Internet to deliver services and grow prosperity. Participation in the digital economy, including cloud computing, requires uninterrupted access to broadband networks. Where this is unavailable, developing countries will miss out on economic opportunities available to their competitors. Reliable power supply, spectrum availability, redundancy in network capacity, secure networking, low levels of transmission latency and Internet Exchange Points are all important to Internet affordability, reliability and local access.<sup>14</sup>

- **The legal and regulatory environment** for e-government, e-business and individual citizens is also important. The Internet and Internet-enabled services thrive in business environments that encourage innovation and enterprise. The importance of frameworks for infrastructure and cross-border connectivity was emphasised in ISOC's 2013 report on *Lifting Barriers to Internet Development in Africa*.<sup>15</sup> Legal and regulatory frameworks for e-commerce, digital signatures and data protection are prerequisites for Internet-enabled business. Businesses and individuals will only use the Internet fully if they have confidence their interactions and transactions are secure.
- **Content and applications** are also vital, building on the free flow of information and exchange of knowledge facilitated by the Internet. Users, particularly the poor and marginalised, need content that is relevant to their developmental needs, in languages they understand, accessible through devices and applications that are affordable and easy to use. ISOC has published a report with OECD and UNESCO demonstrating that local content, Internet development and lower access prices reinforce one another and achieve development gains.<sup>16</sup>
- **Capabilities** are as necessary as content. Users require skills to make full use of Internet-enabled services, including basic and ICT literacy, and skills in using devices and applications. ICT-specific skills in areas such as local infrastructure and traffic management, computer networking, web design, applications development and Internet security are needed in all societies. Policymakers need to understand technical aspects of the Internet, the pace of change in Internet-enabled services, and the interaction between these and public policy domains.
- **Environmental impacts of the Internet** are crucial to sustainability. The Internet enables environmentally-positive energy savings through improved efficiency, virtualisation of goods and services and smart systems to manage productive processes. However, ICTs are also the fastest growing source of physical waste and greenhouse gas (GHG) emissions. Their impact will increase as cloud computing and the Internet of Things become more widespread.<sup>17</sup>
- **More reliable data** are required concerning the relationship between the Internet and sustainable development. Assessments of the WSIS targets show that data concerning Internet usage and developmental impact are poor. Better data-gathering and analysis are essential for evidence-based policymaking across all SDGs.<sup>18</sup>

*In response to these challenges, Internet stakeholders should work together, and with other stakeholders, to:*

- *improve the quality of infrastructure and connectivity;*
- *reduce the cost of connectivity, handsets and access to services;*

- *overcome network constraints and improve network reliability and resilience;*
- *ensure an enabling legal and regulatory environment for Internet access and applications, and facilitate cybersecurity;*
- *stimulate the development of content, services and applications that are accessible to all social groups, including women and girls, rural and urban dwellers, low-income users and those who speak minority languages;*
- *build skills and capabilities that will enable people to take advantage of the Internet to achieve the SDGs, through education and capacity-building initiatives;*
- *mitigate the negative impacts of ICTs on waste and GHG emissions, and maximise the extent to which ICTs help to mitigate GHG emissions and natural resource depletion in other sectors; and*
- *build a more substantial evidence base concerning the relationship between the Internet and sustainable development.*

## Implications for Internet governance

The Internet has developed rapidly over thirty years with core principles that foster innovation and collaboration between stakeholders, built on a unique model of shared global ownership, open standards development and freely accessible processes for technology and policy development. This has enabled it to make substantial contributions to the MDGs. A sustainable Internet, based on an open and collaborative approach to policy, standards and technology development will be crucial in maximizing its contribution to the challenges and opportunities of sustainable development. Three things in particular will be crucial to this:

- **Multistakeholder participation** has been crucial to the Internet's success. The Internet ecosystem draws on the experience, expertise and collaboration of diverse stakeholders, including the technical community, private sector, governments and civil society. Multistakeholder cooperation and dialogue were core values of the WSIS and have enabled the Internet Governance Forum (IGF) to address the relationship between the Internet and development. The value of multistakeholder engagement is recognised in sustainable development fora, and various forms of multistakeholder participation have been introduced in UN processes.
- **Open, universal, interoperable standards** have made the Internet a resilient platform which can be used by all stakeholders to experiment, develop and offer new services, customise applications to their own requirements, and innovate in ways that challenge as well as building on established technology and services. Maintaining open standards has been a priority for ISOC since its inception. They have enabled rapid deployment of innovations such as social media and cloud computing, and will be crucial to leveraging developmental value from big data and the Internet of Things.<sup>19</sup>

- A **collaborative security** approach building trust in online services is essential to the Internet's continued growth. People need confidence that their data are secure, and the networks and services they use reliable, if they are to take full advantage of the Internet. Businesses and development stakeholders need data security and network reliability, particularly when delivering important services such as those concerned with health or financial transfers. ISOC has called for a Collaborative Security approach to Internet security, built on fundamental human rights and Internet properties, collective responsibility, agile responses based on expertise and consensus, and local action to address global challenges.<sup>20</sup>

## The role of the Internet Society

The Internet Society's core values seek to improve the quality of life for people in all parts of the world by enhancing their ability to enjoy the benefits of an open, global Internet.<sup>21</sup> The Internet's power to enhance information and knowledge sharing, foster freedom of expression, improve collaboration and empower participation in economic and social life makes it a powerful, cross-cutting resource to support implementation of the SDGs and achieve positive outcomes through the Post-2015 Development Agenda.

The Internet Society has worked with other stakeholders since its formation to enhance the Internet's contribution to development and build the capacity of Internet professionals and users. It played a prominent part in WSIS, and has been a leading participant in the IGF, the WSIS Forum, the CSTD and other international discussions concerned with ICTs and sustainable development. Regional ISOC teams play an important role in developing regional and local technical capacity. ISOC's Community Grants Programme supports projects in developing countries, and has worked with other stakeholders to counter spam, deploy Internet Exchange Points and strengthen technical ecosystems, expedite the deployment of IPv6, encourage multistakeholder dialogue through national and regional IGFs, and support participation by developing country representatives in international Internet events.

ISOC is committed to working collaboratively, in multistakeholder frameworks, to promote the open development, evolution, and use of the Internet for the benefit of all. It believes this vision of an open Internet will be a critical component in achieving sustainable development. If that goal is to be realized, Internet stakeholders must work closely with others in international agencies, governments, the private sector and civil society who are engaged in initiatives to achieve the SDGs. The limited coverage of ICTs and Internet in current SDG proposals illustrates the need for more extensive partnership in integrating the two agendas and exploring synergies.

*The Internet and sustainable development communities should build stronger collaborative frameworks that draw on one another's experience and expertise to identify effective interventions.*

Progress towards the SDGs has global, regional and national dimensions. Efforts to implement them at national level must respond to the diverse national contexts of different

countries. The best ways to integrate and leverage ICTs will also vary between different national contexts. ISOC's national chapters bring together technical and professional experts concerned with these.

*ISOC will support the work of Internet professionals in developing countries to build stronger understanding and partnerships with other stakeholders to advance the SDGs.*

The SDGs will be finalized at a UN Summit in September 2015. Indicators will then be adopted for individual SDGs, followed by implementation and monitoring. The value of ICTs and Internet in supporting and delivering the SDGs will quickly become apparent and will grow as time proceeds. Their significance should be emphasized by Internet and development stakeholders when the General Assembly reviews WSIS outcomes in December.

*ISOC will work with the Internet community and ICT4D stakeholders to develop a stronger common understanding of how the Internet can contribute to SDG implementation at global and national levels, monitor the use of ICTs in support of SDGs, and build a stronger body of experience to inform future decision-making at the interface between the Information Society and sustainable development.*

## A call to action

The Internet will be a powerful enabler for the Sustainable Development Goals which will be adopted in September 2015. Its impact will be felt in all development sectors, from health and education, through agriculture and innovation, to security and the environment. It will increase as the capabilities and reach of Internet networks and services continue to grow rapidly while the Post-2015 Development Agenda is implemented between 2015 and 2030.

*More attention must be paid to the relationship between the Internet and sustainable development to ensure that potential gains are maximized. All stakeholders share responsibility to work together to develop policies, services, tools and applications that will bring the benefits of Internet access and use to everyone, improving access to health and education, spreading information and knowledge, enabling innovation and enterprise, and thereby promoting economic growth, social inclusion and environmental sustainability. The Internet Society is ready to play its full part in fulfilling that sustainable development agenda.*

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<sup>1</sup> ITU, 2014, p. 15.

<sup>2</sup> A comprehensive review of WSIS outcomes by the secretariat of the UN Commission for Science and Technology for Development can be found in UN CSTD, 2015.

<sup>3</sup> This widely-used phrase is taken from the report of the World Commission on Environment and Development (the Brundtland Commission), *Our Common Future*, 1987, <http://www.un-documents.net/ocf-02.htm>.

<sup>4</sup> See ISOC's Values and Principles at <http://www.internetsociety.org/who-we-are/mission/values-and-principles>.

<sup>5</sup> The MDGs are available at <http://www.un.org/millenniumgoals>

<sup>6</sup> United Nations, 2014.

<sup>7</sup> The UN Secretary-General's synthesis report on the Post-2015 Agenda can be found in United Nations Secretary-General, 2014.

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<sup>15</sup> ISOC, 2013.

<sup>16</sup> ISOC, OECD & UNESCO, 2011.

<sup>17</sup> See Global e-Sustainability Initiative, 2012.

<sup>18</sup> See Partnership on Measuring ICT for Development, 2014, especially 'Conclusion and Way Forward'.

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