Contribution from the Internet Society to the International Telecommunication Union Council Working Group on International Internet Public Policy Issues 2017 Online Open Consultation: "Developmental Aspects of the Internet."

The Internet Society is pleased to submit our contribution in response to the International Telecommunication Union (ITU) Council Working Group on International Internet Public Policy Issues Online Open Consultation on "**Developmental Aspects of the Internet**." This is a timely discussion in light of the United Nation's 2030 Agenda for Sustainable Development as stakeholders confront the important challenge of achieving their Sustainable Development Goals (SGDs).

While the Internet has been identified as a critical enabler for sustainable development, capable of unlocking human capabilities, more than four-billion Internet users do not have access to the Internet. There are some fundamental developmental aspects of the Internet that we believe should be in place to ensure that the Internet facilitates and enables development in general and the SDGs as it continues to be a core driver of economic and social progress.

The Internet Society is a global not-for-profit organization committed to the open development, evolution and use of the Internet for the benefit of all people throughout the world. For twenty-five years, the Internet Society has worked tirelessly with various stakeholders in the promotion of ICT development. As a member of the Technical Community we welcome this opportunity to share our perspectives on this important topic.

1. What are the developmental aspects of the Internet (for example, economic, social, regulatory and technical aspects), especially for developing countries?

The UN's 2030 Agenda recognises that '*the spread of information and communications technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies.*'

The Internet has changed communications infrastructures, impacting the way we communicate, and has transformed our economies and societies in many ways in the ten years since the World Summit on the Information Society (WSIS). People use the Internet and information and communication technologies (ICTs) to gain access to information that support their health and livelihoods, gain new skills and take advantage of new opportunities. Colleagues and friends share information in real-time, and work together unconstrained by geographical distances. Governments and other development stakeholders have taken advantage of new ways of interacting with citizens, providing services and supporting community development.

The Internet and ICTs are a key enabler for social interaction and organisation, designed to connect networks and exchange information. Its general purpose supports all parts of society and the economy, and in the context of the 2030 Agenda, functions as a horizontal enabler of development in general. This in turn creates a demand for holistic ICT policies that looks beyond infrastructure in order to consider e.g. education, healthcare or transportation. This becomes evident when considering the Internet's impact on specific Sustainable Development Goals. **For example:**

- **Agriculture (SDG 2)**

  Access to information is critical to farmers everywhere to improve crops and enhance techniques. The opportunity to seek advice from experts and share experience with other farmers can mean the difference between success and failure, especially for those working on marginal land, which is increasingly the case as population pressure grows in many countries. Access to information about the price and quality of farm inputs, and about market prices for their produce, gives farmers more control and better opportunities to maximise the value of their work. In 2015, it was estimated that 89% of people in urban areas are covered by mobile broadband networks, but only 29% of those in rural areas. The growing reach of mobile broadband in rural areas of developing countries will enable farmers, agricultural extension services and suppliers to work together to improve farm incomes and food security.

- **Health (SDG 3)**

  Ensuring healthy lives and eliminating disease can be facilitated through the Internet and ICTs. Many developing countries suffer from a shortage of health workers, particularly in rural areas. The Internet has become a vital resource for providing information and support to hard-pressed clinicians, while online information sources are increasingly used by citizens caring for their own and their families' needs. One estimate suggests that as many as 59% of patients in emerging markets make use of mobile health services, while more than a hundred countries are engaged on e-health and m-health strategies and initiatives.

- **Education (SDG 4)**

  Education is the key to development. Quality education for girls and boys, in school and higher education unlocks opportunities for individuals and benefits their societies as a whole, including future generations. Many young people, sadly, still don't spend enough time learning the skills they need. The Internet can improve education in schools by supporting teacher training, making new resources and information sources available, and giving children the opportunity to explore the digital environment which is so important to job opportunities and life long learning. But, for this to happen, we must increase the proportion of schools with Internet access, which was less than 25% in some developing countries in 2013. Expanding access to education, and bringing the Internet to rural areas in developing countries, is one of the biggest challenges ahead. [1]

Leveraging the Internet in Development Strategies

Development agencies, international financial institutions, civil society, and technologists recognize the incredible importance of Internet networks, mobile networks (4G IP technology), and the use of applications to not only do their jobs, but for their teams to work in the field, spur new innovation on projects, and to speed economic development by encouraging the use of and development of the Internet and ICTs. This allows the Internet to function as a strategic tool in implementing the 2030 Agenda. **For example:**

- **Monitoring sustainable development.**

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[1] See examples of local community projects that support the SDGs. Projects funded through ISOC's *Beyond the Net Funding Programme*. *Sri-Lanka, "The Internet School for Farmers:"*

http://www.internetsociety.org/sites/default/files/ISOC_Internet_School_for_Farmers_final_report-1.pdf

Nepal, Amakomaya Health Project: http://www.amakomaya.com/en

Kenya, Volunteer management system, St. John Ambulance, https://vms.stjohnkenya.org/

ICTs can play a crucial role in monitoring and measuring progress towards sustainable development, by facilitating data and analysis of indicators adopted for every Goal and target. This includes indicators for ICTs and the Internet themselves, building on the 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. However, big data analysis also raises challenges and concerns about data privacy and security which needs to be addressed, and while the potential is great, it will require governments and other stakeholders to build capacity and resources to maximize its value.

- **Sustainable partnerships for 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.

2. How can governments and other stakeholders promote the developmental aspects of the Internet?

Sustainable development enabled by the Internet requires a sustainable Internet model that is based on an open and collaborative approach to policy, standards and technology development. The Internet has grown from, and because of, its bottom-up collaborative develoment, a model which continues to underpin its evolution and drive its uptake. For example, open Internet standards, such as those developed by the Internet Engineering Task Force, provide the foundation to ensure that the Internet remains interoperable and functional across borders. These open standards are key to the Internet's ability to enable individuals to exchange information, share cultural content and undertake economic transactions on a global scale.

The multistakeholder model of Internet policy and technical development – where governments, civil society, technical communities, and businesses work in an inclusive manner to shape the Internet's evolution - provides a key framework to leverage the network's benefits and to contribute to achieve the objectives of an inclusive global development agenda. Ensuring an open Internet, and safeguarding its fundamental properties such as permissionless innovation, global reach and general purpose is key in maintaining a flexible and accessible core infrastructure to support these efforts.

To promote the Internet for development it is vital for all stakeholders to support the creation of an enabling environment that allows it to thrive. As outlined in on our recent publication "**A policy framework for enabling Internet access",** and our previous contribution to the ITU CWG Internet, the enabling environment constitute a set of interrelated conditions across infrastructure, governance, and human capacity that provide the foundation for development and adoption of the Internet anywhere. Together they provide the basis upon which an Internet supportive of development can evolve:

- **Human Infrastructure**
Trained, educated and engaged people who create, sustain, and maintain networks at a local and regional level. People who connect with each other and form "trusted human networks" that

build content and innovate around the world. This is what allows the Internet to grow and become a platform for economic and community development.

- **Technical infrastructure**

The networks, computers, protocols ("standards"), Internet exchange points, and other technology that the Internet runs "on", and through which the unconnected become connected. Where innovation drives technology and economic growth.

- **Governance Infrastructure**

The frameworks, guidelines and rules that promote Internet use, innovation and expansion are critical to allow the Internet to fulfill its' potential as a channel for human expression and development. This can be as simple as committed and organized people who manage an IXP, to robust stakeholder commitment to building out the Internet. Importantly, the governance infrastructure should in turn exhibit the critical attributes of multistakeholder governance, namely: *Inclusiveness and transparency; Collective responsibility; Effective decision-making and implementation; Collaboration through distributed and interoperable governance.*

Fostering a strong enabling environment for the Internet characterized by a bottom-up process promotes a affordable Internet access and capacity development that improves lives. A good example of this potential are the communities that have come together to connect the unconnected through Community Networks. From the Guifi.net projects in Spain, to the Digital Empowerment Foundations (DEF) activities through its Wireless for Communities (W4C) projects to provide connectivity in rural and underserved areas of India, these initiatives illustrate the potential of empowering communities and people to be at the centre of the process. As witnessed at the Internet Governance Forum in Guadalajara, involving these stakeholders to share and amplify best practices, and to address their concerns, will be key to ensure an enabling environment supportive of bottom-up development.

3. What are the challenges and opportunities?

Promoting an Internet that can support and enable development is dependent on removing barriers, unleashing innovation and talent, training technical experts to develop infrastructure, to make access to infrastructure and content affordable, and extend access to those currently offline. These factors are all part of the digital divide between and within societies, and without bridging this divide there is a risk that the social and economic disparities between those online and those offline continuous to increase.

For example, Identifying barriers to connectivity is key. Several ISOC reports document the positive change in Internet and mobile growth when those barriers are lifted[2].

Training technical experts to develop Internet infrastructure within countries and to facilitate interconnection to and across borders is important. Many organizations provide training in everyting from interconnection, Internet exchange point development, and infrastructure sharing.

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[2] 1. Africa: http://www.internetsociety.org/doc/lifting-barriers-internet-development-africa-suggestions-improving-connectivity
2. SouthEast
Asia: http://www.internetsociety.org/sites/default/files/ASEAN_ISOC_Digital_Economy_Report_Full_0.pdf
3. Kyrgyzstan: https://www.internetsociety.org/publications/kyrgyz-internet-environment-assessment

Creating a more competitive and transparent regulatory and policy environment will help enable more operators to participate in markets, and enable more affordable access to the Internet. The latter is key in ensuring equal opportunities between and within societies, but access alone is not enough. Further investments and efforts are also needed to ensure **affordable and reliable access to sufficient bandwidth that meet their needs to utilize the Internet's full potential and range of services.**

Furthermore, **users need content and platforms that help them achieve developmental goals.** Content needs to be relevant to local needs, and available in languages that are used within communities. Platforms need to be accessible on cheap devices and adaptable to low bandwidth levels. Research by ISOC and others has shown that there are powerful links between the development of local content, affordable access and the development of the Internet ecosystem in developing countries. Governments, Internet businesses and development stakeholders should work together to stimulate the emergence of local Internet ecosystems that offer people new ways of accessing the information and services they need in a meaningful way.

An additional important element to enable the Internet is *trust*. **Internet users need to feel confident that the information they access is reliable and that their use of the Internet will not be used to harm them**. Internet stakeholders need to work together to build that confidence, for example by supporting the development of trusted information platforms and securing users' personal data. As outlined in ISOC's "**A policy framework for an open and trusted Internet"** this user trust is one out of four critical dimension of a trusted Internet that can deliver on its full potential.

How effectively people can make use of the Internet depends on their own capabilities. Lack of literacy, or lack of familiarity with global languages, means that the benefits of the Internet are more available to the better-off and better-educated. If the Internet is to benefit all, and to reduce inequality, two things are crucial: more needs to be done to build people's skills, and more needs to be done to offer devices and platforms which are accessible to those with fewer skills. This is a real challenge upon which stakeholders need to work together.

Cooperation **between stakeholders will be crucial in formulating development strategies and programmes that bring together development priorities and the potential of the Internet.** International discussions to agree on the SDGs and the WSIS+10 review have shown how important it is to build dialogue between experts in both fields and to establish realistic priorities which we can be confident will have a substantive impact on people's lives. Cooperation among stakeholders from diverse fields will be vital to ensure the Internet's potential as an enabler of development.

The Internet Society thanks the ITU again for the opportunity to participate in this Open Consultation and for engaging a global community of stakeholders on the important issue of development for the Internet. These engagement efforts enable stakeholders to come together to find solutions collectively on some of the development challenges through the sharing of information, best practices and experiences. We encourage the continuation of these efforts by the ITU.

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