
The Internet, an Opportunity for Sustainable Development

- An Internet Society Perspective

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The greatest challenge facing the world today is the need to achieve sustainable development – development that will bring economic and social progress to all without harming the future of our planet.

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 transformed our economies and societies in many ways in the ten years since the World Summit on the Information Society (WSIS). People use it to gain access to information that protects them against threats to their health and livelihoods, gain new skills and take advantage of new opportunities. They use it to share information and work together to improve their lives. Governments and other development stakeholders have taken advantage of new ways of interacting with citizens, providing services and supporting community development.

The Internet is thus a powerful tool, but it can best support sustainable development if it is accessible to all. The UN's 2030 Agenda calls upon the international community to 'increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries (LDCs) by 2020.' The Internet Society (ISOC) and the Internet community support that call and are determined to work with other stakeholders to achieve it.

Of course the Internet is not 'the answer' to the challenges of poverty, inequality and environmental degradation. But it offers new ways of sharing and analysing information - new tools for delivering on the Sustainable Development Goals (SDGs).

So how can the Internet contribute to sustainable development? This paper provides some **examples of what is happening today**, illustrating the kind of experiences and opportunities which can be built on for the future.

These examples show some of the ways in which the Internet can make a practical contribution to development. **What do people need to do to take full advantage of those opportunities?**

First, people need access to the Internet. Not just access, but **affordable and reliable access to sufficient bandwidth to meet their needs.**

Health

Ensuring healthy lives and eliminating disease are critical SDG objectives. Many developing countries suffer from a shortage of health workers, particularly in rural areas. The Internet has become a vital resource 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

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. 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. However, local entrepreneurship can inspire progress through creative solutions rooted in a local perspective. The story of Mr. Mahabir Pun from Nepal, the recipient of ISOC's 2014 Jonathan B. Postel Service Award, is one such example. Despite lacking infrastructure, such as roads or extensive access to electricity, as well as regulatory obstacles, Mr. Pun was able to build a wireless network using Wi-Fi, connecting more than 175 villages in 15 district that today have access to the Internet and all its benefits.

The Internet Society is working with the African Union to establish IXPs across that continent.

As well as access, **users need content and platforms that help them to 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 at 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

At present, between 40% and 45% of the world's people use the Internet at least occasionally, but the figure is much lower – less than 10% – in the least developed countries (LDCs). Access to broadband is far less extensive in developing countries, and especially in LDCs, than it is in developed countries, while the cost of access is much higher. Women, and people who live in rural areas, are less likely to have access, or be able to afford it, than those in urban areas. These digital divides need to be overcome if we are to maximise the Internet's value for development.

That requires investment in infrastructure, led by the private sector. But it also requires cooperation to make the most of whatever infrastructure is available. One important way in which that can be done is by establishing Internet Exchange Points (IXPs), which allow the exchange of Internet traffic within each country – cutting costs and improving quality of service.

Agriculture

Access to information is critical to farmers everywhere.

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 - 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.

should work together to stimulate the emergence of local Internet ecosystems that offer people new ways of accessing the information and services they need.

“Content needs to be relevant to local needs, and available in languages that are used within communities”

An important element in this 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.

How effectively people can make use of the Internet depends, too, on their own capabilities. Lack of literacy,

like 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.

Business

Small businesses in developing countries find it difficult to access capital and financial services.

Mobile money has brought banking services to many small enterprises in countries such as Kenya, allowing them to manage their resources and build their businesses. More than 50% the adult population of Kenya now makes use of mobile money.

The Internet is enabling more financial services than just mobile money, including credit and insurance, while online investment facilities, such as Kiva, are also making crowdfunding available to small businesses. These innovations are enabling new enterprises to emerge and grow, and are particularly helpful to small-scale businesswomen, whose access to finance has been more constrained. Social media have also given small-scale enterprises new ways of building profile and marketing their services.

Lastly, **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 is vital to the achievement of that that goal.

The challenges of sustainable development are complex. The Internet has great potential to support achievement of the SDGs and improve the quality of people's lives. That potential will grow as the scope and reach of the Internet continue to grow during the next fifteen years, and the Internet Society and the Internet community are committed to working with development stakeholders to fulfil that potential.

For more information, please visit:

- <https://www.internetsociety.org/wsisis>
- <https://www.internetsociety.org/doc/internet-and-sustainable-development>