



global
connectivity
program

THE GLOBAL CONNECTIVITY PROGRAM AT IISD WORKS TO FACILITATE THE FLOW OF KNOWLEDGE, LEARNING AND LEADERSHIP NEEDED FOR GLOBAL SUSTAINABILITY.



COMMUNICATIONS TECHNOLOGIES WILL UNDERPIN GLOBAL CHANGE TOWARD SUSTAINABLE DEVELOPMENT.

Why is an international environment and development institute like IISD involved in Internet governance and policy?

IISD cannot, by itself, shift the world to sustainability. IISD needs to build, work with and support critical masses of actors necessary to achieve results on major challenges in global trade, investment, subsidies, climate change, energy, and water and resource management. We cannot connect actors with knowledge and with each other without clear, effective policies and protocols for the development and deployment of the underlying “global connectivity system.”

Those working toward sustainable development need robust, open, accessible, global communications infrastructures, technologies and services to support the exchange of knowledge and the building of relationships. Networked tools are needed to help gather better environmental data and monitor the use of resources more effectively. At the same time, the negative environmental impacts of information and communications technologies need to be understood and minimized or eliminated.

What are the global trends driving our interest?

A world wired to its natural and built environments

“Smart” systems—smart energy grids, smart buildings, smart transportation, and so forth—are being built to improve efficiencies in our use of resources. Sensor networks are being deployed in watersheds and environmentally sensitive regions around the world to monitor resource use and impacts. All of these require intersection with robust communications systems.

A global digital economy

According to McKinsey,¹ Internet-related consumption and expenditure is now bigger than either the agriculture or energy sectors. The Internet’s total contribution to global GDP is bigger than the GDP of Spain or Canada. In many countries, ICT industries grow at rates exceeding most other sectors, are magnets for talent, and are motors of economic and social innovation. But will this digital economy be a “green” economy?

A virtual global village of ideas and influence

The virtual world is moving to horizontal, less authenticated discourse; ideas and actions are being influenced through massive networks of friends and colleagues, as much as by (or more so than) the availability of information and data alone. The transfer of information is starting to shift from the use of search engines to the sending of queries through networks of friends on social media sites and to central destination sites. Issues of digital literacy, online identity, trust, accountability and freedom of information are becoming central to the sharing of knowledge and collaboration.

What are our key areas of concern?

The transition to Internet Protocol version 6 (IPv6)

To enable the deployment of smart systems and monitoring networks, policy-makers need to help facilitate the transition that is underway to a new system for assigning unique numerical addresses to each device connected to the Internet. Since government departments and agencies are among the largest institutional users of the Internet and ICTs, public procurement can have a powerful effect on enabling a smooth transition to IPv6 by stimulating demand for IPv6 products and services.

Universal affordable access to broadband networks and services

To maximize the contribution of ICTs to the development of a green economy, affordable access to broadband networks and services must be available to as many people as possible for two main reasons: (1) to enable dematerialization of physical products, services and processes, for example, through e-commerce, tele-work, and the electronic delivery of education, health care and other public services; and (2) to provide the widest possible scope for bottom-up, user-generated green innovation.

Confidence and trust in the online environment

To enable the development of the green economy by dematerializing products, services and processes, as well as by creating an environment in which green innovation can flourish, it is necessary for individuals and organizations to have confidence in the reliability of ICT-based networks and services. Users must trust other individuals and organizations they deal with online, and to be assured that their privacy and other rights will be protected in the virtual world of cyberspace, just as they are in the physical world.

Our work in 2010–11

This past year, IISD's Global Connectivity team supported the emergence of two new public policy forums for the governance and management of the Internet: the West Africa Internet Governance Forum and the Canadian Internet Forum, as well as related national forums within Africa. We continued to be active within the United Nations Internet Governance Forum. Our primary focus has been to ensure that these forums are truly multistakeholder, representing a broad cross-section of civil society as well as business and government interests. In all cases, we have brought environmental and development organizations to the table to raise awareness of the growing complexities surrounding Internet policy and its resulting impact upon sustainable development. With the support of the International Development Research Centre, we are creating a toolkit for building national and regional forums on Internet policy and governance, to be released in 2012.

GOVERNANCE OF THE
INTERNET AND ITS RELATED
TECHNOLOGIES MUST KEEP
ECONOMIC, SOCIAL AND
ENVIRONMENTAL OBJECTIVES
FRONT OF MIND.



Our team

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[Biographies available at www.iisd.org]

¹ McKinsey Global Institute (2011). *Internet matters: The Net's sweeping impact on growth, jobs and prosperity*. Available at http://www.mckinsey.com/mgi/publications/internet_matters/index.asp.

The following selected papers can be downloaded from www.iisd.org

On the future of the Internet and its impact on sustainable development

- ◆ Advancing Sustainable Development through ICTs (video)
- ◆ ICTs, the Internet and Sustainable Development: Towards a new paradigm
- ◆ Measuring the Impact of Internet Governance on Sustainable Development
- ◆ Innovation in the Governance of Technology and Society: Progress on Internet governance
- ◆ Mapping the Future of the Internet onto Global Scenarios: A preliminary view
- ◆ Critical Internet Uncertainties: How will governance, evolution and growth of the Internet affect sustainable development?
- ◆ Internet Governance and Sustainable Development: Towards a common agenda
- ◆ The ICT Sector and the Global Connectivity System: A sustainable development overview
- ◆ How Information and Communications Technologies Can Support Education for Sustainable Development: Current uses and trends

On Internet policy and governance in developing countries

- ◆ ICTs and Adaptation: Opportunities for Africa (forthcoming, late 2011)
- ◆ Preparing the Grounds for the West Africa Internet Governance Forum
- ◆ Resource Wars and Information and Communication Technologies
- ◆ Using ICT Research to Assist Policy Making and Regulation: The case of Namibia.
- ◆ A Developing Connection: Bridging the policy gap between the information society and sustainable development [seven case studies from Costa Rica, Kenya, South Africa, Brazil, India Egypt and the Philippines]

On Internet policy and governance in Canada

- ◆ Canadian Internet Registration Authority: The Internet and Canada's Future: Opportunities and challenges
- ◆ University Data Centres: Policy and business case for reducing greenhouse gas emissions
- ◆ Canadian Internet Registration Authority: Report on Canadian interest in Internet governance
- ◆ The Digital Economy and the Green Economy: Opportunities for strategic synergies. A submission to Industry Canada's Digital Economy Consultation
- ◆ Accountability and Transparency in Internet Governance
- ◆ Projecting the Evolution of the Internet, its Technologies, Communities and Management: Canadian stakeholders' understandings and perceptions of the issues

About IISD

The International Institute for Sustainable Development (IISD) contributes to sustainable development by advancing policy recommendations on international trade and investment, economic policy, climate change and energy, and management of natural and social capital, as well as the enabling role of communication technologies in these areas. We report on international negotiations and disseminate knowledge gained through collaborative projects, resulting in more rigorous research, capacity building in developing countries, better networks spanning the North and the South, and better global connections among researchers, practitioners, citizens and policy-makers.

IISD's vision is better living for all—sustainably; its mission is to champion innovation, enabling societies to live sustainably. IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the Canadian International Development Agency (CIDA), the International Development Research Centre (IDRC) and Environment Canada, and from the Province of Manitoba. The Institute receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations and the private sector.

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