

# ICT4D Donor Agencies and Networks

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## Overview of ICT4D in Global Development

Information and communication technology for development (ICT4D) was placed on the global development agenda through the United Nations World Summit on the Information Society (WSIS) process, which was held in two parts, in Geneva in 2003 and in Tunis in 2005. It was the first United Nations summit to have multistakeholder participation, including business and civil society in addition to governments and international organizations. This inclusive approach reflected changes in the global development environment and a recognition that new ICTs enable, as well as require, greater knowledge sharing and collaboration across sectors and actors. New technologies have also enabled a greater degree of transparency and accountability. These transformations have affected the field of development cooperation as evidenced by the attention being given to issues relating to open data, open development, and open aid. The notion that ICT is a “tool” for development has become well established in the international donor community (Mansell & Wehn, 1998; Uimonen, 1997), although the notion of a “tool” has been criticized when it is understood as implying the neutrality of technology.

### *Early developments and the WSIS process*

Prior to WSIS, few donor agencies recognized the social and economic significance of ICTs. Canada and Sweden were among the first countries to appreciate their implications for development, supporting initiatives through the Canadian International Development Agency (CIDA)

and the Swedish International Development Cooperation Agency (Sida) from the mid-1990s. Reflecting early research and development on digital technologies and, especially, the way the internet was advanced through initiatives such as the ARPANET (Advanced Research Projects Agency Network) and, later, by the National Science Foundation, support was channeled through research oriented donor agencies, such as the International Development Research Centre (IDRC), Canada and the Swedish Agency for Research Cooperation with Developing Countries (SAREC), and later Sida’s Department for Research Cooperation. These efforts focused on building ICT infrastructure and capacity in institutes of higher education and on applied research in ICT4D, the impact of which reached well beyond academia. Other donor agencies focused on more development oriented interventions, for example, the International Institute for Communication and Development (IICD) with headquarters in the Netherlands and the Swiss Agency for Development and Cooperation (SDC), which focused particularly on ICT4D initiatives in partnership with civil society organizations.

Some networks and partnerships facilitated collaboration and coordination between donors and civil society actors. Bellanet ([www.bellanet.org](http://www.bellanet.org)), for example, was established to help the international development community to work together more effectively by using ICT. Since Bellanet promoted the use of ICT among development actors around the world, for example in the fields of knowledge management and online collaboration, it played an active role in advancing the ICT4D agenda, reflecting the aims of its core funders in Canada, Denmark, Sweden, and Switzerland. The Information for Development Programme, infoDev, was constituted in 1996 as a partnership of international development agencies, coordinated and served by an expert secretariat at the World Bank. From the outset, infoDev’s mandate focused on helping donors and developing countries to use ICT to achieve economic growth, sustainable development,

*The International Encyclopedia of Digital Communication and Society*, First Edition.

Edited by Robin Mansell and Peng Hwa Ang.

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DOI: 10.1002/9781118290743/wbiedcs042

and poverty reduction. Resulting from the 1997 Toronto Conference on Global Knowledge for Development, the Global Knowledge Partnership (GKP), now the GKP Foundation, was a network that brought together civil society actors involved in ICT4D to exchange best practices and to forge new partnerships in development. Similarly, the Association for Progressive Communications (APC), founded in 1990, with consultative status to the United Nations since 1995, actively promoted ICT4D through programs focusing on communications and information policy, women's networking support, and strategic use of technology and capacity building.

Among the United Nations agencies, the United Nations Development Programme (UNDP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the United Nations Conference on Trade and Development (UNCTAD) supported ICT4D initiatives at the policy level and through national or regional programs. The International Telecommunication Union (ITU) played a role with respect to regulatory issues affected by transformations in the telecommunication sector, especially the deregulation and liberalization of the rapidly growing communication market. The United Nations Research Institute for Social Development (UNRISD) offered policy advice based on research on ICTs and social development.

Regional organizations actively contributed to ICT4D, for example, the Asia-Pacific Development Information Programme (APDIP) of UNDP and the African Information Society Initiative (AISI) of the United Nations Economic Commission for Africa (UNECA). On the global level, the United Nations ICT Task Force (UN ICT TF) provided policy advice to governments and international organizations, thus complementing the work of the Global Digital Divide Initiative (GDDI), and the Digital Opportunities Task Force (DOT Force), set up by the World Economic Forum and G8, respectively.

The WSIS process placed ICT4D more firmly on the global development agenda. During the Summit, ICT4D shifted from being a marginal issue pushed by techno enthusiasts to a more broadly recognized concern in the international development community. In policymaking, ICT was no longer considered to be a question of

technology or infrastructure, but was recognized as a major socioeconomic force affecting all aspects of development. Concomitantly, the ICT4D discourse became more development oriented as illustrated in the WSIS Declaration of Principles: "We, the representatives of the peoples of the world ... declare our common desire and commitment to build a people-centred, inclusive and development-oriented Information Society" (ITU, 2003).

In conjunction with the WSIS, many partners and stakeholders became involved in ICT4D, with bilateral and multilateral actors being joined by new actors from academia, civil society, and the private sector. Major donors like the United Kingdom Department for International Development (DFID) and the United States Agency for International Development (USID) became more interested in ICT4D, along with the Danish International Development Agency (DANIDA), the German International Development Agency (GIZ) and the Finnish International Development Agency (Finnida). As ITU, UNDP, and UNESCO continued to play leading roles in the WSIS, more United Nations agencies joined them, for example, the Food and Agriculture Organization (FAO), the International Labour Organization (ILO), and the United Nations Children's Rights and Emergency Relief Organization (UNICEF). A growing number of nongovernmental organizations (NGOs) incorporated ICT into their development agendas, and ICT4D emerged as an interdisciplinary field of research.

### *Post-WSIS repositioning*

In 2005 the OECD's Development Assistance Committee (DAC) highlighted key donor strategic orientations and challenges for ICT4D including oversight of the policy environment for private sector investments and the creation of an enabling environment to encourage private sector support for ICT infrastructure. The donors' role in ICT4D was limited to ensuring that the poorest members of society would benefit from ICT, the rest being the responsibility of the private sector. As mobile telephony spread in the developing world as a consequence of rapid advancement in technology, market privatization, and deregulation, this has resulted in lower user costs (Hellström, 2010).

Only a few years later, donors, practitioners, and development policymakers seemed to lose interest in ICT4D; this led to a significant drop in donor investment. For example, DFID's focus on and engagement in ICT4D prior to the WSIS was much diminished post-WSIS. The same occurred at SDC, which had a dedicated team working on ICT4D issues prior to and during the WSIS, but failed to sustain a position as a leader in the field. Sida's ICT4D Secretariat, set up in 2002, shut down a few years after the WSIS.

The telecenter movement is indicative of the growth and decline in donor support. In the late 1990s, when ICT4D mainly focused on connectivity and access issues, many telecenters were established offering public access points at the community level. Telecenters, usually equipped with computers with locally relevant software applications and information, and sometimes offering internet access points, were widely deployed in the global South. IDRC's Acacia program in Africa, the ITU, UNESCO, and the World Bank ran initiatives for the creation of community telecenters, many with substantial funding. National, regional, and international telecenter networks were formed. Most of these are members of the international organization Telecentre.org Foundation, which were initially supported by IDRC, Microsoft, and the Philippine Information and Communications Technology Office. There is evidence of some economic gains and of social empowerment, but sustainability and scalability remain concerns, in the face of many telecenter failures and closures that have also been noted (Avgerou, 2010). Nonetheless, research has also shown that, with appropriate institutional frameworks, telecenters can bring a great many benefits to communities (Kleine, 2013).

The donors' declining interest in ICT4D generally is difficult to explain. It may have been related to the initially weak evidence base, that is, early ICT4D interventions showed limited impact and there were perhaps too many "failed" projects (Avgerou, 2010; Dodson et al. 2013; Heeks 2002), which were attributed to technocentric interventions and evaluations. It may also be explained by the view that digital divide(s) are the private sector's responsibility, or by efforts to mainstream ICT4D into existing development projects. Some donors, including DFID, Sida, and SDC, tried

to mainstream ICT within their organizations at a strategic level. This strategy failed for several reasons: ICT development issues were oversimplified, staff lacked sufficient time or expertise, and, when donor budgets were decentralized, central resources for ICT initiatives eventually dried up without being replaced by regional or sectoral resources.

As the early donors pulled out of various ICT4D initiatives and networks, new ones emerged. The Global Alliance for Information and Communication Technologies and Development (GAID), launched in 2006, was a subgroup of the United Nations ICT Task Force, but accomplished relatively little. New donors and actors included newly industrializing and transitional nations, including South Korea, China, and India, which set up their own ICT4D programs, often fronted by their private sector. As with many ICT4D interventions by Western donors, soft loans were granted, orders were tied to technology from the "donor" country, and the focus was mainly on the distribution of technology, often lacking insight into contextual issues.

The WSIS process, nevertheless, had some lasting outcomes. Apart from the Digital Solidarity Fund, which was largely ignored by countries in the global North, the United Nations Internet Governance Forum (IGF), a global forum for dialogue between all stakeholders, has shifted from being very technology oriented to a focus on internet governance policy issues. This has led to participation by a more balanced mix of practitioners and policymakers. The IGF is an important forum for the larger ICT4D community and meetings are held on an annual basis. In addition, the annual WSIS Forum offers a platform for policymakers, practitioners, and some academics for discussion and follow-up on the WSIS commitments.

## Transformations in the ICT4D Field

### *ICT4D: A complex field in development cooperation*

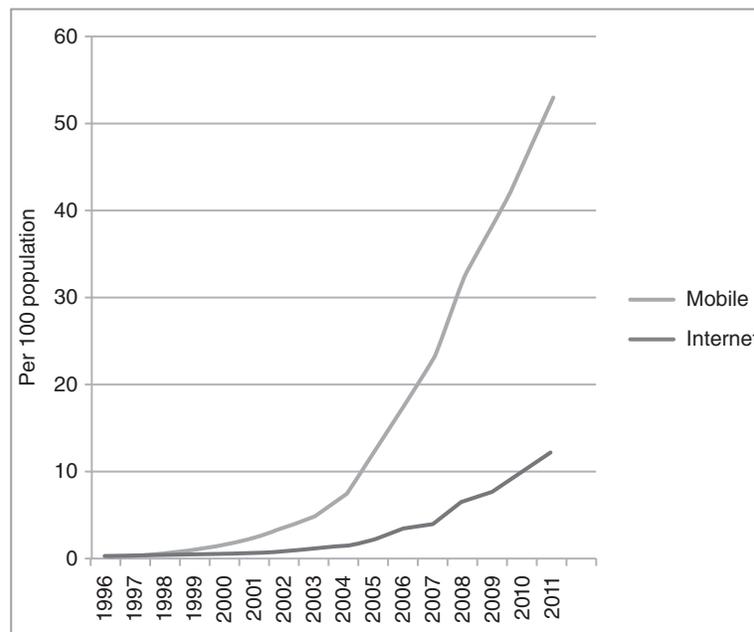
ICT4D is a challenging field for development cooperation. Often promoted by individual champions, it is as often resisted or bypassed by the established order. There is a tendency

among ICT advocates to view technology as a panacea, as exemplified in the notion that ICT would offer “less developed” countries an opportunity to “leapfrog” to a more “developed” status. By contrast, individual as well as institutional development actors often question the relevance of ICT, new technologies being considered a “luxury,” with little bearing on immediate development needs such as schools and hospitals. Exaggerated promises around specific projects such as the One Laptop Per Child (OLPC) initiative may put off some donors, while the many challenges in the telecenter movement indicate the complexities involved. Nevertheless, it has become clear to many development actors that ICT plays a critical role in global development and that there is continuing concern about the digital divide(s). Persisting gaps in access and use reflect broader socioeconomic gaps between rich and poor societies and social groups, patterns of digital stratification that reflect socioeconomic inequalities that have yet to be overcome.

It is unclear how best to bridge the digital divide(s) while maintaining a focus on globally agreed development priorities. When the Millennium Development Goals (MDGs) were

formulated in 2000, ICT4D was in its infancy, and only brief mention was made of ICT in MDG 8 on global partnerships, narrowly formulated as “In co-operation with the private sector, make available the benefits of new technologies, especially information and communication technologies.” The MDGs have dominated the global development agenda, while ICT4D has remained marginal in most institutional settings. As a post-2015 MDG agenda is being discussed, the role of technology in development is again under review.

ICT4D has shifted from a technical to a more development oriented issue, with gradually greater emphasis on the “4D” than the “ICT.” The WSIS process played a major role in this shift, attracting nontechnological actors who insisted on a more development oriented approach. But this shift is also illustrative of technological convergence that is contributing to the ubiquity of ICT. For example, while early ICT4D interventions focused on public access through internet cafés or telecenters, the mobile technology is enabling alternative means of access, even in rural and remote areas (see Figure 1). The so-called Arab Spring demonstrated that internet



**Figure 1** Mobile cellular subscriptions and internet users in sub-Saharan Africa (developing countries only) 1996–2011. *Source:* World Bank, 2013.

access and use have more to do with democracy and human rights than with technology. Meanwhile, ICTs have become a taken-for-granted tool in development cooperation with few questioning the validity of investment in websites, email, or video conferencing as tools of the trade in the global South as well as in the global North.

### *The mobile (r)evolution*

Many ICT4D interventions have turned to mobile services, with new actors, including the mobile operators, joining in. With increased market competition, operators have lowered their prices and increased the number of subscribers among low-income groups. Growing subscription numbers are, however, a double-edged sword. Overall revenues may increase, but the average revenue per user (ARPU) may decline. In order to address this and to build customer loyalty, the operators have developed value added services to retain customers (and to increase revenues and ARPU). For example, mobile money facilitating financial transactions (remittances and payments) and information exchange using a mobile phone without visiting a financial institution can be seen as a loyalty product, which also helps to spur development by facilitating the flow of money between urban and rural and income-rich and income-poor members of kinship groups at relatively low transaction costs. This service also helps to reduce vulnerability to unexpected events such as accident, illness, theft, or drought by offering access to financial resources. Together with Google and donors such as the Bill and Melinda Gates Foundation, the mobile operators are investing in these services and in an extensive community knowledge program (Hellström, 2010).

### *ICT4D research networks*

Scholarly interest in ICT4D has grown steadily, coalescing in important networks that influence policymaking and practice. The Canadian IDRC was one of the earliest to support research and innovation in ICT4D, especially through the regional program Acacia in Africa, Pan Asia Networking (PAN) in Asia, and the Institute for Connectivity in the Americas in Latin America

and the Caribbean. The ICT4D Collective and Multidisciplinary Centre for ICT4D at Royal Holloway, University of London, which started in 2004, was awarded a UNESCO Chair in ICT4D in 2007 and ranked one of the top 10 science and technology think-tanks in 2013 by the Global GoTo Think Tank Index. It works in partnership to undertake research, teaching, and consultancy on the appropriate and sustainable use of ICT for development. The Swedish Program for ICT in Developing Regions (Spider) at Stockholm University has served as a resource for ICT4D since 2004 in collaboration with a network of partner universities in Sweden. Spider has built up a knowledge base on ICT4D projects and research in Africa, Asia, and Latin America and has supported the International Network for Postgraduate Students in the area of ICT4D (IPID) since 2006. The EuroAfrica-ICT Initiative is funded by the European Commission to strengthen ICT research and policy links between Africa and Europe, and there are numerous graduate programs related to ICT4D.

Research networks in ICT4D contribute to practice and policymaking on the national and global levels. Some are funded by donor agencies (IDRC, DFID, Sida) to stimulate evidence based ICT4D interventions. Although much ICT4D research is undertaken by scholars in the global North, there are growing numbers of ICT4D scholars in the global South, some of whom have been trained in the global North. Various conferences, including ICTD, IFIP WG 9.4, IST-Africa, M4D, and e-Learning Africa serve as platforms for advancing the field and networking for researchers and practitioners.

### *Multi-stakeholder partnerships*

A salient feature in donor discourses on ICT4D is the emphasis on multistakeholder partnerships. The notion that partnerships between different actors – government, business, and civil society – are needed to achieve development goals is not unique to ICT4D. For instance, this emphasis is apparent in the Paris Declaration and Accra Agenda for Action for Aid Effectiveness which calls for alignment, harmonization, and inclusive partnerships. In the field of ICT4D, multistakeholder partnership has become a normative

framework reflecting the issues and transformations in the delivery of development aid (Geldof et al., 2011; Unwin 2009). As argued during the WSIS ICT4D Forum 2003, “the concepts of ICT4D and multistakeholder partnerships (MSP) are mutually reinforcing,” or more precisely:

There is growing recognition that partnerships between civil society, government and business organisations offer substantial potential for innovative solutions to pressing development challenges. At the same time, ICT, and the sharing of knowledge that they have enabled, have in themselves increased both the need and the facility of building partnerships between organisations in different sectors, at different levels (global, national or local), and which operate in different geographic, cultural and social spaces. (Weigel & Waldburger, 2004, p. 197)

Whether the focus is on ICT as a sector or as a tool, it is seen as a crosscutting issue affecting all aspects of development and is thus of concern to all actors. A recurring topic at WSIS was the extent to which both ICTs and multistakeholder partnerships were needed to achieve the MDGs. The need for multistakeholder partnerships in ICT4D is informed by the assumption that cross-sector collaboration and a synergistic division of labor are needed: the private sector focusing on infrastructure and innovation, governments on enabling policy environments with pro-poor agendas, and civil society on community involvement, balancing social and market concerns (Weigel & Waldburger, 2004, pp. 30–31). Donor agencies are identified as “catalysts” for noncommercial innovation, knowledge sharing, and networking, and effectiveness in development and poverty reduction.

Although the boundary crossing nature of ICT4D encourages a multisectoral approach, synergistic collaboration is problematic, even when linkages across areas of expertise are acknowledged. Despite calls for greater harmonization, donor frameworks and policymaking in the ICT area tend to reinforce, rather than transform, sectoral silos. National ICT policies typically are crafted by ministries of communication or technology, following a predominantly technology focused, rather than development

oriented, agenda. Sector-specific policies include e-learning in education and e-health in health. Different donors support different interventions based on their respective mandates, further reducing cross-sectoral collaboration.

Partnerships between public and private actors are particularly problematic. The private sector is the main actor in the development and deployment of ICT infrastructure, especially with the liberalization and deregulation of the telecommunication sector in the 1990s. Although many agree that businesses should take a lead role in infrastructure development, it remains unclear to what extent government and civil society should insure equitable access to and use of ICT, especially for marginalized groups and areas where access may not be commercially viable. The deployment of ICT generally follows patterns of economic inequality, the most lucrative markets being the best served. Companies are keen to sell their products and services and their approach to public-private partnerships often translates into businesses selling goods and services to governments. So far, the private sector has not taken on a broader development role, apart from corporate social responsibility (CSR) programs, although some companies have also become involved in development funding through corporate philanthropy.

### From Hyperbole to Evidence Based Results

The discourse within the ICT4D donor community has gradually shifted away from top-down advocacy to pragmatic and evidence seeking intervention. The early polemical debates between utopian forecasters and dystopian critics dominating the first decade, are gradually giving way to bottom-up, demand driven strategic integration of ICT4D especially in the health, agriculture, education, and governance sectors. The complexities of the ICT4D field are becoming clearer as experience shows that there is no “universal technical fix” and efforts to address persisting patterns of digital stratification demonstrate the need for cooperation between many actors. The field of development cooperation itself is undergoing profound change, with pressure for results and financial controls, as exemplified

by results based management (RBM) and financial audit requirements, rigorous administrative practices that are enabled by ICTs.

### *Transparency, accountability, and participation*

In practice and in research, an emerging field focuses on how ICT can be applied to strengthen and enable transparency, accountability, and participation. Accessible ICT tools, including mobile phones and social media, are being used by citizens to create change. The so-called Arab Spring indicated the catalytic role that ICTs may play to foster political transformation. Digital opportunities of this kind are being identified by new actors such as the Omidyar Network (by eBay founder Pierre Omidyar), which focuses on government transparency; the Indigo Trust (part of the Sainsbury Family Charitable Trusts), which funds technology driven projects on innovation, transparency, and citizen empowerment; Google Ideas, with its focus on counter-radicalization, illicit networks, and fragile states; and the Tides Foundation, which has become a global movement open government partnership (OGP), where participating governments commit to four principles: transparency, civic participation, accountability, and the use of technology and innovation to increase citizen access to information and their ability to use new technology. Other organizations, such as the Open Society Institute, the National Democratic Institute (NDI), and the International Republican Institute (IRI), fund support and use of ICTs in various projects to increase transparency and accessibility, promote equality and inclusion, and improve citizen security. The Making All Voices Count fund, announced in 2012 and primarily funded by DFID, Sida, USID, and the Omidyar Network, supports innovation, scaling up, and research on the use of ICT to support open government and citizen engagement in Africa.

### *The fragmentation–harmonization paradox*

The ICT4D field consists of many stakeholders, including bilateral and international donors as well as businesses, research networks, trusts,

foundations, and philanthropists, but is rather fragmented, with technological advancements and complex financial arrangements which have led to a diverse field of actors.

The private sector is playing an important role in tackling the digital divide(s), exemplified by the internet.org initiative, a global partnership between leading companies like Facebook, Ericsson, Nokia, and Samsung. Launched in 2013, its goal is to make the internet available to the remaining two-thirds of the world's population using cheaper technologies to achieve improved access. It remains to be seen to what extent this ambitious initiative will work in partnership with governments, civil society, and the academic community and this is the case for other partnerships of a similar kind (OECD/WTO, 2013).

Funding sources for ICT4D interventions are also fragmented. A challenge for ICT4D projects is to deliver services once initial pilot funding ends. ICT4D actors often run their projects and programs in isolation (and communication is vertical rather than horizontal). There are few scaling up formulas and there is limited knowledge about how to replicate effective models in large-scale implementations. This challenge is associated with a lack of long-term commitment by donors, unrealistic timelines from deployment to impact assessment, and the absence of sustainable business models, although donors are turning to innovation hubs as alternative models. The technological “solutions” invented in innovation hubs and during hackathons often take shortcuts to development and sometimes do not look beyond the technological artifacts, hardware, and infrastructure to the more complex issues involving people, processes, and sustainability challenges and a holistic perspective.

### *WSIS+10 and the post-2015 development agenda*

The WSIS+10 in 2013–15 review process offers donor agencies and networks a chance to revisit the challenges aired during the WSIS process. WSIS put ICT4D on the agenda but many subsequent interventions focused on the technical digital divide(s) (ICT infrastructure and hardware), with the hope that development results would follow. Technocentric projects and pilots

that neglected the social context failed and the digital divide(s) persists. Internet access is a factor affecting exclusion and asymmetrical power relations, although the rapid growth in mobile phone use and mobile internet connectivity are narrowing the access gap.

As the international community revises the global development agenda, it is unclear whether ICT will be recognized as a driving force for social development. Major review processes include the Millennium Development Goals Review (Post-2015 Development Agenda), the processes to set the post Rio+20 Sustainable Development Goals (SDGs), and the International Conference on Population and Development beyond 2014 review (ICPD+20). These overlapping intergovernmental processes, with discussions on crises of food, finance, climate change, poverty, inequality, and insecurity, and violence against women, may start to blur the ideals in the WSIS Declaration unless ICT4D actors are able to secure and reinforce their argument that the role of ICT4D needs to be incorporated to achieve inclusive and equitable global development.

SEE ALSO: Digital Divide(s); ICT4D; ICT4D and Economic Development; ICT4D and Poverty Reduction; ICT4D, Regulation and Strategy; ICT4D and Sustainability; Multistakeholder Partnerships

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