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ICTs and International Cooperation: a discussion paper
Sarah Cummings

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What is This?

ICTs and International Cooperation: a discussion paper

Information and communication technologies are the focus of a growing number of development policies and programmes, but there is considerable debate about whether these technologies are effective in meeting international development goals.

Sarah Cummings

Information is critical to development, thus ICTs as a means of sharing information are not simply a connection between people but a link in the chain of the development process itself.

(Hudson 1999)

Detailed analysis of experience around the world reveals ample evidence that, used in the right way and in the right purposes, ICT can have a dramatic impact on achieving specific social and economic development goals, as well as play a key role in broader national development strategies.

(Digital Opportunity Initiative 2001)

ICT-for-development can be seen as a fad, as a focal point for enthusiastic action by many kinds of actors concerned with development and with selling products in developing countries.

(Wade 2001)

INTRODUCTION

In a paper presented to the Euforic annual meeting in June 2001, Poul Nielson, European Commissioner for Development and Humanitarian Aid, argued that information and communication technologies (ICTs) should be seen as 'a tool to help meet existing development objectives in particular the international development goals, not as a separate sector'. He considered this to be the best guarantee against 'a donor-driven and supply-driven approach. . . . Indeed, ICT should not be seen as a priority sector as such, but rather as a tool'.

Robert Wade, in a paper presented to the Organisation for Economic Cooperation and Development (OECD) Global Forum on the Knowledge Economy, fundamentally criticizes what he calls the 'ICTs-for-development campaign' (2001). In a nutshell, Wade argues that proponents of ICTs are unwilling to address issues of cost, cost/benefit ratios, or trade-offs between specific ICT investments and alternative investments in the same po-

litical unit and at the same time. He argues, in fact, that these proponents are 'missionaries' and that ICTs-for-development is a 'fad' supported by the business interests of large ICT companies. He also compares this enthusiasm for ICTs to the unsuccessful campaign to 'tractorize' African agriculture in the 1960s and 1970s, which was supported by US tractor manufacturers.

Both Nielson and Wade raise fundamental questions about the role of ICTs in international cooperation. This short discussion paper will first assess donors' commitment to ICTs, particularly whether they view ICTs as a 'priority area' or as a set of tools. Secondly, it will then consider ICTs' contribution to meeting international development goals. Thirdly, it will discuss what conditions need to exist at a national level if ICTs are to be an effective tool and whether ICTs are supply-driven by the donors. Fourthly, it will briefly present the examples of the international women's movement and the emerging knowledge-sharing philosophy to emphasize the qualitative impact of ICTs on development. Finally, the conclusions will try to assess the evidence gathered to conclude whether the ICTs for development campaign is indeed a fad, supported by missionaries and those wanting to sell computers to developing countries.

This paper was originally designed as a discussion document with the objective of stimulating a lively debate during the workshop on 'International cooperation' at the conference on 'Global e-quality: rethinking ICTs in Africa, Asia and Latin America' which took place in Maastricht, the Netherlands, on 25–27 March 2002. For this reason, it does not touch in detail on the national and international regulatory environments, crucial to the functioning of ICTs for development, because this was covered by another workshop.

For this paper, 'international cooperation' will refer to donor policies and approaches. In line with the conference itself, ICTs will be taken to refer primarily to the Internet. Other important ICTs, such as radio and telephones, will not receive specific attention.

ICTs AND THE DONORS

The most comprehensive inventory of ICT policies and programmes to date was undertaken by the OECD and the International Development Research Council (IDRC) in 2001 for the OECD conference mentioned above. Their results reveal the situation as of February 2001 so there has no doubt been some change since this time. This inventory describes the ICT programmes of Development Assistance Committee (DAC) members and

other bilateral and development agencies; multilateral agencies; regional organizations; foundations and non-profit organizations; as well as some other actors.

The review attached to the inventory confirms that there is a general acceptance by donors that ICTs form an important new component of the development discourse, albeit newer for some than for others. While it does show which agencies are investing in ICTs for development, it is nevertheless impossible to put an overall figure on that investment because much of the investment has been ploughed into projects for which there is little or no data available. If this is excluded, ICT-specific programmes are in the order of USD 500 million or 1 percent of Official Development Assistance but this is set to increase widely with new initiatives (Hammond 2001). Most of the major donors have commenced a strategy or policy process to invest in ICTs, and have at least some exploratory projects which support ICT for development (OECD/IDRC 2001). In terms of application areas, education is the prime thematic area for most donors. Other focus areas include health, natural resource management, small and medium-sized enterprises and e-commerce projects.

Investment in telecommunications and other ICT-related infrastructure is mainly viewed as the domain of the private sector, with the possible exception of such investments in some rural and socially marginalized areas. The private sector is also playing an unprecedented and expanding role in influencing donor discourse in this field (OECD/IDRC 2001).

This level of investment demonstrates that many donors are seeing ICTs as a priority area but, at the same time, recognizing ICTs as important tools for the rest of their development projects. There is an enormous diversity of approaches, which does not necessarily meet Nielson's call for the guiding principles of 'complementarity, coordination and coherence'. Cynthia Hewitt de Alcántara, who has been described by Louk Box and Rutger Engelhard (2001) as an ICT 'sceptic', also argues for the need for better coordination between international ICT initiatives, at national level and in terms of the ICT regulatory environment. This coordination does not exist at the moment and foreign agencies push their own agendas which can sometimes undermine or override consultative, participatory national policy processes – privatization, liberalization, and open market access strategies.

To conclude, donors see ICTs as both priority areas and as a set of tools, and the distinction between these approaches is probably largely administrative.

ICTs AND INTERNATIONAL DEVELOPMENT GOALS

The international community has identified seven international development goals that lie at the heart of the fight against poverty and the struggle to create opportunity, prosperity, health, safety, and empowerment. This section will consider whether the evidence of ICTs' contribution to these goals can be trusted. Box and Engelhard (2001) argue that there are three views on the perceived relation between development cooperation and ICTs: 'the enthusiast, the sceptic and the pragmatist'; and that each of them will give a different answer to the question of what ICTs have to offer poverty alleviation, society building and sustainable development.

The Digital Opportunities Task (DOT) Force (2001) which should probably be put in the 'enthusiast' category, argues that:

> Harnessing the power of ICTs can contribute substantially to realizing every one of these goals: either directly (e.g. through greater availability of health and reproductive information, training of medical personnel and teachers, giving opportunity and a voice to women, expanding access to education and training) or indirectly (through creating new economic opportunities that lift individuals, communities and nations out of poverty).

The Digital Opportunity Initiative (2001) considers that ICTs are already being used to address development goals in a direct and effective manner. It cites numerous examples:

- improved health outcomes in the Gambia
- benefits in primary school education in Chile
- creation of direct employment in Bangladesh; and
- better access to government services in remote areas of India.

It argues that the identification of and continued focus on both economic and social development goals is a key determinant of success. Solutions should be realistic, flexible and sensitive to local conditions, and should be backed by strong public and private institutional support. Above all, there needs to be strong commitment to local needs as well as political will at the highest level.

Empirical evidence from cross-country studies, collected by Bedi (1999), suggests that a minimum threshold of ICT density is required in order for these technologies to exert an influence on growth. The evidence from firm-level studies indicated that there might be substantial time lags between ICT investments and their positive effects. Overall, the impression that emerges from the empirical work is that there may be substantial benefits associated with the spread of ICTs. However, the majority of the empirical evidence comes from developed countries. To build a credible body of evidence on developing countries, the foremost task is to improve the quality and availability of data.

Wade, however, again asks us to look critically at such studies. He argues that documented cases typically:

- talk about plans, intentions, opportunities provided and gives little emphasis to the distinction between these things and action on the ground

- talk about benefits and not about costs
- make no comparisons between returns to investments in ICTs and returns to other kinds of investments, such as improving types of crops; and
- explain cases of failure, when noted at all, in ways that protect from question the assumption that ICT investment is high priority.

However reliable the evidence to date, there is no doubt that quantitative evidence on the impact of ICTs is scarce. Catherine Nyaki Adeya, in her substantial literature review of the application of ICTs in Africa during 1990–2000 argues that:

> the phenomenal rate at which ICT applications continue to grow has meant that attempts to collate empirical evidence have been inevitably out of step with realities on the ground.

In addition,

> useful indicators for many of the least developed countries in Africa are virtually non-existent. (Nyaki Adeya 2001)

This problem is faced by many development initiatives. For example, the wider problems of results-based management in international cooperation are outlined by Howard White (2002) in his recent editorial for the OneWorld thinktank under the revealing title 'The road to nowhere?'

Michel Menou (1999) argues that specific problems arise when one attempts to measure the impact of the Internet. He considers that the growing concern for demonstrating the impact, assumedly positive, of ICTs and the Internet seems to be primarily driven by the need to justify urgent and massive investments in these areas. This approach might be short-sighted and of limited productivity. The notion of impact itself is floating on a continuum of assessment perspectives ranging from mere market penetration to lasting social transformation and beyond. It needs to be carefully mapped. In addition, the Internet is itself a far from explicit object. It covers infrastructures, resources, transactions, and the outcome of their use. Bringing order to the various facets would help positioning what it is that one wants to investigate and how this relates to other universes. It is, for instance, questionable whether the Internet can be studied independently from other ICTs which it may only substitute or refresh. The Internet user community is an equally elusive and volatile object of study. It seems, at least in a cross-cultural perspective, to be hardly amenable to standard methods of investigation.

These studies on the difficulty of measuring the results of ICT development do not mean we should give up. Instead, we need to find workable methodologies which will help us overcome some of these difficulties. In fact, the most positive benefits of ICTs may not necessarily be directly socio-economic but rather in their ability to bring people together and to give access to vast sources of information. Anja Møller Rasmussen (2000) participated in a DANIDA investigation into researchers' and librarians' experience of the Internet, which was conducted in Ghana and South Africa. The study demonstrated that:

> the Internet, and especially the e-mail functions, has a large potential to breakdown the isolation that countries are placed in through lack of knowledge… The advantages are improved, faster and more reliable contact to individuals and organizations, and wide access to a range of information sources – something that used to be an almost unattainable luxury.

This will be further considered in the final section on 'networking and knowledge sharing'.

THE NATIONAL ENVIRONMENT AND DEMAND/SUPPLY

ICTs cannot be effective in isolation. ICTs cannot create economic growth on their own and complementary development strategies, such as for small businesses and micro-lending, are required if ICTs are to be effective. Good governance, a transparent system of regulation, and infrastructure rollout are also important.

It is difficult to ascertain whether there has indeed been a supply-driven approach to ICT development, as mentioned by Nielson. Wade (2001) again argues that

> the whole [ICT] literature gives scant attention to the demand side. It is striking that at a time when everyone and their aunt is working on the digital divide, we have little knowledge of the relationship between, say, human development indicators and ICT indicators, over time.

Instead, he argues, ICT literature presents a

> pot-pourri of anecdotes and correlations, where the criteria of inference are so that correlation becomes causation.

The dangers of supply-side solutions, driven by the donors, operate not only at the international level but also filter down to national initiatives because of the community of international consultants brokering the conventional wisdom of ICTs and development. Telecentres, with the support of donor agencies, have been entirely supply-driven in South Africa. This, naturally, has a disastrous impact on the effectiveness of such initiatives.

NETWORKING AND KNOWLEDGE SHARING: THE PRESENT AND THE FUTURE

This section first provides the example of the international women's movement to demonstrate the positive side of the use of ICTs. This will be followed by a brief

analysis of the spread of the knowledge-sharing philosophy, strongly linked to ICTs, which may turn out to be one of the most positive benefits of ICTs for international cooperation. Both of these examples illustrate how ICTs can bring people together and give them access to vast amounts of information.

The International Women's Movement

> The Internet has allowed women's groups to create channels for self-expression, communication and political action as an integral part of the new global network society. (Harcourt 2000)

With the use of the Internet, some women in the South have been able to improve their daily lives through greater access to useful, practical information on income-generating activities, agricultural production methods, and health. In addition, women in different localities are now able to link up through national, regional and international networks. This process of electronic networking leads to the strengthening of groups and individual women's skills and contacts, facilitating the related processes of empowerment and democratization. With e-mail petitions, website links, chat rooms, electronic discussion lists and sharing up-to-date information, women's groups have been able to empower themselves with information flowing nationally and internationally, building structures for change and mobilizing struggles for peace and gender justice (Cummings 2001).

According to Wendy Harcourt, ICTs are being used successfully in the struggle around violence against women (2000). A surf over the hundreds of websites set up by women in every continent, from *ISIS Manila* in the Philippines, *Aviva* in the UK, *FeMiNa* in the USA, *WomensNet* in South Africa, to *Q Web* in Sweden, demonstrates the use of the Web in campaigns around violence against women. Although it is difficult to evaluate the success of these campaigns in eradicating violence against women, there is no doubt that there has been a dramatic growth in the visibility of the problem and in international efforts to eradicate it.

Another successful demonstration of the growing power of the Internet was the Fourth World Conference on Women, held at Beijing, China, in September 1996. In the two years preceding the conference, people from all regions, cultures and walks of life had reflected together on-line, seeking consensus on fundamental issues related to gender and women's human rights. ICTs, particularly the Internet, made this possible by broadening participation of diverse groups and enabling women in particular to participate and build new partnerships. Harcourt is, however, not whole-hearted in her support for ICTs. Difficulties of using the new information technologies are recognized, including huge inequalities in terms of access, technical and language barriers, and uncertain service provision.

ICTs and Knowledge Sharing

It is very difficult to talk about ICTs without referring to the knowledge management philosophy which has become increasingly evident in development cooperation since its adoption by the World Bank in the second half of the 1990s. Diverse knowledge management efforts around the world are being pursued under various labels: knowledge management, knowledge sharing, intellectual capital management and intellectual asset management. After 50 years of development cooperation, knowledge management offers an explicit approach which emphasizes the learning from successes and failures (Kalseth and Cummings 2001). At the present time, this approach has largely been applied to make the development agencies more efficient in knowing what they know (King 2000).

In the World Bank mission statement, it appears that the ICT strategy is now fully associated with its knowledge management initiatives. This ICT focus-cum-knowledge management approach is aimed, initially, at increasing the individual effectiveness of Bank personnel; then at transferring information and knowledge to the organizational level; and, ultimately, at making information and knowledge readily accessible to all. Although the World Bank's approach has been heavily criticized by civil society institutions (Wilks 2002), the knowledge management philosophy with its emphasis on communities (of practice and purpose) and organizational learning can make a valuable contribution to development.

The emphasis, implicit in the second wave of knowledge management, on knowledge sharing, connecting people and 'knowledge as flow' may lead to a sea change within international cooperation, particularly in the practices of donors themselves. This change may also have important implications for changing ways of working in developing countries. For example, a study by Manji and others of 103 human rights and advocacy organizations in Central and Southern Africa found that the culture of sharing resources or information was not present in many of them as a result of their being developed in a culture of 'information starvation' (Nyaki Adeya 2001). Sudden access to the Internet had led to information overload and hoarding.

The challenge of adapting the knowledge management approach to the knowledge deficits in the South and the development of genuine knowledge with partners in the South, identified by King (2000), still remains. If this could be taken on board, the knowledge management revolution could really become a gateway to new ways of working for development actors, and not just one more 'passing fashion' (King 2000).

CONCLUSIONS

ICTs have been adopted by donor organizations as priority areas and as important tools for executing their development projects. There is evidence that they are

effective in the attainment of international development goals, although Wade encourages us to be sceptical of this evidence because it is influenced by the ICT-for development 'campaign'. There is no doubt that more research is required on this subject, although the difficulties of quantifying the impact of the Internet in socio-economic terms should not be underestimated. We should, however, be wary of throwing out the ICT baby with the results-based bath water. ICTs reduce isolation, facilitate international cooperation and provide access to vast amounts of information, although serious problems of access remain. In addition, the knowledge sharing philosophy which is entering the development discourse, which is crucially dependent and in some cases fundamentally entangled with ICTs, may have the greatest impact on international cooperation as it may change the way development organizations work with each other.

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Abstract

Discussion paper prepared for a workshop on 'International Cooperation' at the conference on 'Global equality: rethinking ICTs in Africa, Asia and Latin America' held in Maastricht, the Netherlands from 25–27 March 2002. First assesses donors' commitment to

ICTs, particularly whether they view ICTs as a 'priority area' or as a set of tools. The contribution of ICTs, in this instance the Internet, to meeting international development goals is currently the subject of considerable debate. The examples of the international women's movement and the emerging knowledge sharing philosophy are used to emphasize the qualitative impact of ICTs on development. Concludes that ICTs reduce isolation, facilitate international cooperation and provide access to vast amounts of information, although serious problems of access remain. The knowledge sharing philosophy which is entering the development discourse is crucially dependent upon and in some cases fundamentally entangled with ICTs. This may have the greatest impact on international cooperation as it could change the way development organizations work with each other.

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MORE ON ICTS AND DEVELOPMENT

Global knowledge: a challenge for librarians.

C. Edwards. *IFLA Journal,* 27 (2) 2001, p.65–69. il. tbls. refs.

Information and communications technologies (ICT) have the potential to benefit the knowledge society, particularly for the disadvantaged. They have the potential to support sustainable development and huge infrastructure investments and access initiatives mean that the majority of the world's population will have telecommunications access in the next 10–15 years. But developing skills and content will be the biggest challenge, and there is real risk of perpetuating the 'digital divide'. The G8 Okinawa Charter on the Global Information Society (2000) and the Global Knowledge Partnership promote initiatives to bridge the digital divide. The library and information profession can make a critical contribution, by providing access, structuring knowledge, imparting information skills, preserving heritage and inspiring trust. But a public relations campaign is needed to raise awareness of what the profession can offer, and to win it a voice in the digital divide debate. (The author may be contacted by electronic mail at Chris.Edwards@british council.org).

Developing participation in the global information society.

K. Appiah. *International Forum on Information and Documentation,* 23 (4) Oct/Dec 1998, p.30–32. refs.

Access to modern information and communication technologies (ICTs) is crucial to the development process. It is now both technically and economically feasible to bring ICT services to the entire world and, increasingly, people around the world, including those in developing countries, are demanding access to the emerging global information network. Examines the issues related to the design of strategies to develop greater access as well as services for all, including the marginalized, to the Global Information Infrastructure (GII). A case is made for a strategy which, while recognizing the diversity that exists between and within countries, will promote the development of active, dynamic and competitive membership of the Global Information Society (GIS) by all participants. (The author may be contacted by electronic mail at koaa@africaonline.com.gh).

Global Program Initiative: information policy research.

R. Valantin. *Information Technology for Development,* 7 (2) Oct 1996, p.95–103.

Describes the International Development Research Centre's (IDRC) Global Program Initiative to promote effective research on public policy issues relating to Information and Communications Technologies (ICTs) in developing countries. The initiative consists of 5 interrelated components: global ICT policy research and action agenda; specific public policy issues and ICTs; networking infrastructure policy issues and development; impact of information; and ICT policy instruments, processes, and impacts at the national and sectoral levels. Gives details of each of these components and discusses the expected outputs and anticipated impacts of the Program Initiative. (The author may be contacted by electronic mail at rvalantin@idrc.ca).

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