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Will ICTs change the rural information landscape?

The ICT agenda: global action plans and local solutions

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Information and Communications Technologies (ICTs) have brought issues of communication and rural access to information to the forefront of the development agenda. In this energetic atmosphere, experiments and pilot projects abound. People are forming new social networks, learning together and sharing knowledge across geographic and cultural boundaries.

The context for this issue of LEISA is a global phenomenon: the growth of information and communications technology, a process that is both a product of, and a stimulus to, the parallel phenomenon of globalisation. Many see these changes as a historic societal transformation on a par with industrialisation, with the Internet as the harbinger of “perhaps the greatest revolution that humanity has ever experienced.”

Whether or not this proves to be the case only time will tell. At the moment, computers and the Internet are becoming part of the daily life of millions in the North, giving them instant and largely free access to over 50 million pages of information on every conceivable topic (collectively known as the World Wide Web), and enabling them to use email and other computer applications to speak to each other and exchange written messages and pictures in a flash. The information networks that make this possible are formed by linking computers together into a global network of fibre optic cable, satellites and telephone lines, known simply as the Internet.

The digital divide

In the South, the situation is radically different. There are relatively few telephones, let alone computers needed to connect to the Internet. In terms of delivering information or communicating electronically, rural areas in the South are considered “the first mile of connectivity.” For many LEISA readers and others, this mile, by and large, must be travelled using more traditional technologies: a magazine, a printed email message, a book, a cassette tape, a story or a song.

A fundamental issue is the poor state of rural electrical and telecommunications infrastructure in the South, causing a North-South disparity, termed “the digital divide”. The lack of adequate infrastructure is only one aspect of the digital divide, however. Nor is it simply a North-South gap. When expressed in numbers, one in 15 people in the world counts as an Internet user. The figure for North America and Europe is one in two; for Africa it is one in 200 (Jensen, 2000). But these statistics do not take into account the even greater disparity between Internet access in urban vs. rural areas. Mike Jensen, an expert on ICTs in Africa, states, “No studies have been made in Africa of the number of rural vs. urban users, but it is safe to say that users in the cities and towns vastly outnumber rural users.”

Global responses

Infrastructure and related policy issues are high on the agenda of various

international bodies that have been convening global conferences, issuing statements, and drafting action plans regarding ICTs, the Information Society, and the digital divide.

The United Nations ICT Task Force was established in 2001, a forum for discussions on policy and particularly on how ICT can help to achieve the Millennium Development Goals. A similar initiative is the Digital Opportunity Task Force, created by the G-8 in July 2000. The DOT Force brings together governments, non-governmental organisations, experts and the private sector around initiatives focusing on different aspects of the digital divide, such as access, training, and support for locally relevant Internet content.

In his opening statement to the General Assembly plenary meeting on ICTs for development in June this year, the Secretary General of the United Nations, Kofi Annan, identified three areas of shortfall in the policy process at the international level:

- **Top down, donor-driven:** “Our efforts must be based on the real needs of those we are seeking to help. They must be fully and genuinely involved. [...] In particular, we must find better ways to ensure the participation of developing countries at all stages.”
- **Lack of long-term commitment:** “Our efforts must be sustained over the long term. In recent years, we

have witnessed a number of very promising initiatives that, regrettably, did not live up to expectations. The reasons were diverse, but one of the principal causes was insufficient long-term commitment on the part of initiators and sponsors."

- **Duplication of efforts:** *"There is a real need for the many initiatives to come together, united by a common purpose and common determination."*

The latest milestone in the international dialogue around ICTs and development is the World Summit on the Information Society (WSIS), set to take place in Geneva in 2003 and Tunis in 2005. The Africa Regional Conference on WSIS concluded in Bamako, Mali, in May 2002, with a declaration calling for greater infrastructure investment and the removal of regulatory, political, and financial obstacles to the development of communication facilities.

The WSIS process is an opportunity to achieve greater coherence among international initiatives. A greater challenge will be in ensuring that the information society of the future is one in which cultural diversity and indigenous knowledge systems are genuinely valued and supported.

Back to the drawing board

The development impact of ICTs is notoriously difficult to capture. Development projects that set out to achieve specific goals through the introduction of ICTs, for example to enable farmers to access agricultural information, often find that the technology is being used in altogether different ways, for instance that local youth use the Internet to look for jobs outside the community.

Lessons learned from such experiments point to a need to apply the hard-won lessons of the past to the new technologies. Community-driven, participatory approaches tend to succeed; hasty, top down experiments tend to fail. A new focus on the communication role of ICT, local content, training and the use of simple ICT applications in combination with existing media such as radio is needed to support societies with low levels of functional literacy.

ICTs are proving their value in helping to deliver information to and from intermediary information providers such as universities, government offices, telecentres, NGOs and libraries. Some of the most successful ICT for development projects are focused on supporting the work of intermediaries who are relaying information to and from farmers and others at the grassroots level who do not themselves have access to the technology.

Many early efforts to introduce ICTs in village settings failed due to unrealistic expectations regarding people's ability to pay for the services offered. While many cities in the South have a thriving market for private cybercafes, in rural areas the "business case" for ICTs is much weaker. In the aftermath of these frustrating attempts, alternative, indigenous models of community access such as the Information Villages Research Project (p.28) are springing up, challenging the consumer-demand framework for technology adoption. It appears that, viewed as a community investment and a community asset, information technology will have to demonstrate its value in each local context, and if it is valued, it can be sustained.

The role of mediating organisations

In this respect the role of local "mediating organisations" is critical. Even with the community-owned model, ICT investments can fail to pay off because of a lack of training and technical support and the difficulty in finding relevant information in the local language.

Research by the Telecommons Development Group describes how "mediating organisations" – community development organisations that know how to use ICTs effectively – are linking local information and communication needs with technology, funding mechanisms, and policy arenas. Farmers' organisations, for example, are enabled to participate as stakeholders in international policymaking on issues that affect their lives. It is important that they do so, and as Pat Mooney of the ETC Group notes in p.29, such messages do carry weight.

Linking communities of practice

A major thrust of Bellanet's work with ICTs is in helping development workers use the technologies to engage in dialogues with each other (see also p.3). Participation in online communities doesn't require high-end technology; simple email is a powerful tool that enables users to connect with each other. For example, in partnership with the Technical Centre for Agricultural and Rural Cooperation (CTA) Bellanet hosts an online dialogue called AFAGRICT, an electronic discussion among people interested in the use of ICTs in agriculture in Africa. AFAGRICT is a community of practice linking researchers and practitioners in the North with those working in isolated rural settings. Such communities can be a valuable resource and source of moral support for extension workers and others working at the community level.

An important lesson that Bellanet has learned in its work with communities of

practice is that networking is not about technology; it's about people connected through their common interest, sharing knowledge and working together toward common goals. The principles that underlie LEISA approaches also hold true for networks: their strength lies in diversity, and the best networks are organic, arising from the commitment and hard work of individuals. They are formed from the ground-up around practical issues, and they use technology in an appropriate and sustainable way.

Future opportunities

Widespread access to ICTs in rural areas is still several years in the future, but wireless technologies may eventually end the reliance of ICTs on costly telephone infrastructure. In Central America and many other regions, mobile telephones are increasingly affordable, helping to overcome rural isolation and enabling dispersed families stay in touch.

The challenge for those working at the grassroots level is to understand the choices offered to them by investment in ICTs and to make informed decisions. At this level, where information is scarce and communication difficult and expensive, ICTs have a lot to offer, but the high initial costs – not only in hardware, but in the cost of training and applying the technologies in day-to-day work – can be an insurmountable obstacle. We hope that this special issue of LEISA Magazine will help clarify some of the issues, offer some solutions, and perhaps inspire others to tackle the challenges and find their own way of travelling "the first mile."

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