GLOBAL INFORMATION SOCIETY WATCH 2009

Focus on access to online information and knowledge – advancing human rights and democracy

Association for Progressive Communications (APC)
and Humanist Institute for Cooperation with Developing Countries (Hivos)

Global Information Society Watch 2009

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Dedicated to A.K. Mahan - an activist who valued intellectual rigour and concrete outcomes.

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Information and livelihoods

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Introduction

We live in a divided world where far too many people live in abject poverty. To help these people get out of poverty is good for the world as a whole, for great disparities in wealth will lead to violence and terrorism and no one can live in peace and harmony. None of the Millennium Development Goals (MDGs) can be achieved if we fail to address the problem of poverty and ensure livelihood security for the majority of the poor.

A vast majority of the poor live in the rural areas of developing countries and are dependent on agriculture or fishing for a living. They need information directly relevant to their livelihoods. Agriculture-related information is often one of the most immediate needs, since small-scale agriculture is very important to household incomes in rural areas. Information on current crop prices, fertiliser and pesticide costs, and the availability of improved seeds and low-cost improvements in farm technology can help farmers buy farm inputs and equipment of good quality at the right price, or help them successfully obtain credit.[1] Information on government entitlements and training programmes, opportunities for developing new products, and markets for environmental goods[2] is also useful. Without such information, poor families find it hard to take advantage of new opportunities for generating income and increasing their assets.

Many asset-less poor migrate to cities far and near and are constantly on the lookout for opportunities to work in construction sites, ports, factories and wherever they can be employed. They are often exploited and work in conditions far from satisfactory. They will be happy to have information on where work is available and wages are good.

This report looks at a few examples of how access to information helps improve the lives of people and how new technologies are being used in getting information to those who need it.

Small catch but big impact

About twelve years ago scientists at the M S Swaminathan Research Foundation (MSSRF) started working with fishing communities in coastal villages of southern India. The major thrust of the project, funded by the International Development Research Centre (IDRC), was to look at how emerging information and communications technologies (ICTs) could be used to make a difference to these people's lives. But the project managers took a holistic perspective and put people and their needs before technology: they went beyond merely providing online access to information through their internet-enabled Village Knowledge Centres (VKCs). They were concerned about fisherpeople losing their catches, nets, boats and even their lives on days when the sea turned rough. Lives could be saved if only one could have advance knowledge of weather conditions. After some investigation, the MSSRF researchers found that United States (US) Navy satellites were collecting weather and wave height information for the Bay of Bengal, and the Navy website released forecasts based on these data twice daily. The VKC volunteers started downloading this information and made it available to the fisherpeople in their local language through notice boards and a public address system. Ever since this service commenced not a single death in mid-sea has been reported from these villages.

The need for innovation

Suddenly, the US Navy stopped providing this information and something needed to be done. MSSRF joined hands with Qualcomm, Tata Teleservices and Astute Systems Technology,[3] and these companies came up with an innovative mobile application called Fisher Friend based on third-generation code division multiple access (3G CDMA) technology. With Fisher Friend, the VKCs provide fisherpeople with real-time information on things like fish prices in different markets, weather, wave heights, satellite scan data on the location of fish shoals, and news flashes while they are at mid-sea. Access to these, as well as other information such as relevant government schemes, has improved market transparency and the earnings of smaller fisherpeople. Qualcomm is working on incorporating global positioning system (GPS) capability in the phones, so their exact location can be tracked. This would make rescue operations much easier.

Timely access to relevant information can not only improve the standards of living of a community, but also save lives.

Real evidence, not just anecdotal

Much of the evidence of the benefits of access to information and the use of technology to facilitate access so far has been anecdotal. In a recent paper in the *Quarterly Journal of*

1 Chapman, R., Slaymaker, T. and Young, J. (2003) *Livelihoods Approaches to Information and Communication in Support of Rural Poverty Elimination and Food Security*, Overseas Development Institute, London.

2 Good examples of environmental goods are handicrafts made from locally available material (plant or mineral-based material) and organic products.

3 Qualcomm is a US-based multinational that designs and make chips for telecom equipment. Tata Teleservices is a leading mobile service provider, and Astute Systems Technology is a software company writing applications for the chips.

Economics Robert Jensen of Harvard University has quantified the benefits.[4] He showed that the adoption of mobile phones by fisherpeople and wholesalers in Kerala in southern India had led to a dramatic reduction in price dispersion (the mean coefficient of variation of price across markets over a stretch of 150 kilometres came down from 60%-70% to less than 15%); the complete elimination of waste (from 5%-8% to virtually nil); and near perfect adherence to the Law of One Price.[5] In addition, fisherpeople's profits increased by 8%, while consumer prices declined by 4% (directly driving a 20 rupee/person/month consumer surplus, the equivalent of a 2% increase in per capita GDP from this one market alone). Sardine consumption increased by 6%. The advent of mobile phones also led to a 6% increase in school enrolment and a 5% increase in the probability of using healthcare when sick. All this with no government programmes, and no new funding requirements.[6]

Several other initiatives involve mobile technology. Nokia recently launched Life Tools in India, a fee-based service, with a view to impacting on the daily lives of people, especially farmers. Life Tools offers timely online access to information that will be of great relevance to farmers, students and the lay public. Nokia has partnered with the Maharashtra State Agricultural Marketing Board (to gather commodity prices from 291 markets), Reuters Market Light, Syngenta and Skymet,[7] among others. It has plans to introduce Life Tools to other developing countries before the end of the year.

Online access to information through mobile phones and through telecentres has also helped shop owners, traders and the self-employed increase their earnings in many countries. The mobile phone is becoming the primary connectivity tool. With significant computing power, it will soon be the primary internet connection, providing information in a portable, well-connected form at a relatively low price, pushing aside the personal computer.

Conclusion

Today the "bottom" three-quarters of the world's population accounts for at least 50% of all people with internet access, says a Pew report.[8] As Turner pointed out in 2007, investment in telecom, which facilitates easy access to information, is more productive than investment in other kinds of infrastructure.[9] The impact is particularly noticeable in developing nations.

ICTs are not a technical solution on their own but are enablers in a process of local prioritisation and problem solving. This report has highlighted initiatives that use mobile technology. But mobile solutions are obviously not the only useful ones. For instance, LabourNet in Bangalore connects employers and casual labourers through an online database that is updated constantly.[10] Thanks to LabourNet, workers, especially at construction sites, get decent pay, training, insurance and safety measures at the workplace. However, the information supplied is more at the administrative level than the grassroots level.

The success lies in embedding ICTs in a holistic approach encompassing a diverse range of development initiatives. The trick is not to emphasise technology but to put people and their needs before technology. Sustainable livelihood approaches need to be people-centred, recognising the capital assets of the poor and the influence of policies and institutions on their livelihood strategies.[11]

Also, the mere ability to access information cannot take one far. What is important is what one can do with that information. Often one would need to have additional skills and capital to take advantage of the information. That is why efforts to provide improved access to information should go hand in hand with efforts to enhance skills through training programmes, and efforts to enhance access to finance through microfinance and the formation of self-help groups.

Rural livelihoods involve a wide range of strategies both within and outside the farming sector. Often farming communities need to augment their income through non-farming enterprises, and here the women and youth could play a role in enhancing household income.

It will be good to remember that a large number of ICT-enabled development pilot projects have remained just that – pilot projects that did not scale up. ■

4 Jensen, R. (2007) The digital provide: Information (technology), market performance, and welfare in the South Indian fisheries sector, *Quarterly Journal of Economics*, 122 (August), p. 879-924.

5 An economic law which states that in an efficient market, all identical goods must have only one price. In other words, variations in fish prices caused by differences in demand and supply at different locations disappeared once both buyers and sellers started using mobile phones.

6 Turner, B. (2007) Cellphones & Development — Evidence, not anecdotes. blogs.nmss.com/communications/2007/02/cellphones_deve.html

7 Syngenta is a multinational company. One of its corporate goals is to help farmers maximise the potential of their resources. Towards this end it provides technological solutions, as well as information relating to agronomy, land use, etc. Skymet provides weather-related services that allow clients to adapt to a changing environment.

8 Quitney Anderson, J. and Rainie, L. (2008) *The Future of the Internet III*, Pew Internet and American Life Project, Washington. www.future-internet.eu/fileadmin/documents/prague_documents/oc-meetings/PIP_FutureInternet3.pdf

9 Turner (2007) op. cit.

10 LabourNet matches the skills sets of people available for work with the needs of those who use their services, similar to headhunters who match the skills of executives and managers and place them in the right companies at the right levels, only LabourNet deals with the poor.

11 Chapman et al. (2003) op. cit.

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GLOBAL INFORMATION SOCIETY WATCH 2009

GLOBAL INFORMATION SOCIETY WATCH (GISWatch) 2009 is the third in a series of yearly reports critically covering the state of the information society *from the perspectives of civil society organisations across the world.*

GISWatch has three interrelated goals:

- **Surveying** the state of the field of information and communications technology (ICT) policy at the local and global levels
- **Encouraging** critical debate
- **Strengthening** networking and advocacy for a just, inclusive information society.

Each year the report focuses on a particular theme. **GISWatch 2009** focuses on *access to online information and knowledge – advancing human rights and democracy.* It includes several thematic reports dealing with key issues in the field, as well as an institutional overview and a reflection on indicators that track access to information and knowledge. There is also an innovative section on visual mapping of global rights and political crises.

In addition, 48 country reports analyse the status of access to online information and knowledge in countries as diverse as the Democratic Republic of Congo, Mexico, Switzerland and Kazakhstan, while six regional overviews offer a bird's eye perspective on regional trends.

GISWatch is a joint initiative of the Association for Progressive Communications (APC) and the Humanist Institute for Cooperation with Developing Countries (Hivos).

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