The Digital Divide

The Digital Divide is the gap between individuals, household, business and geographic areas at different socio-economic levels with regard both to their opportunities to access information and communication technologies, and to their use of the internet for a wide variety of activities.

Opportunities and Dangers of ICT

According to BT (http://www.btplc.com/society/pdf/digital_long.pdf), information and communication technologies can pose opportunities and dangers: -

- Dangers – insecurity, collapse of geographic communities, loss of privacy, acceleration of poverty.
- Opportunities – safe natural environment through 'e-materialisation', progressive innovations in work opportunities, and technology-enabled, direct citizen participation.

There are then many different dimensions to the inequality in the use and advantage made of ICTs, including Gender, Ethnic Group, Economic Group, Geographic area and Size of Enterprise.

The Need to Bridge the Digital Divide

In October, 1999, BBC News (http://news.bbc.co.uk/1/hi/special_report/1999/10/99/information_rich_information_poor/466651.stm) reported a speech at Telecom 99 in Geneva, Switzerland, where the UN Secretary General Kofi Anan warned of the danger of excluding the world's poor from the information revolution.

The report highlighted the latest UN Human Development Report, which shows industrialised countries, with only 15% of the world's population, are home to 88% of all Internet users. Less than 1% of people in South Asia are online even though it is home to one-fifth of the world's population. There are only 1 million Internet users on the entire continent of Africa compared with 10.5 million in the UK.

It also claims that even if telecommunications systems were in place, most of the world's poor would still be excluded from the information revolution because of illiteracy and a lack of basic computer skills. However, if the information is presented in a way that does not discriminate against the illiterate, then it has the potential to be accessible to all.

Bridging the Digital Divide

Digital Partnership Online (http://www.digitalpartnership.org/solutions_rural.htm), a partnership facilitating affordable access to technology in developing economies,

lists five key components required to be integrated to bridge the digital divide:

- Access to equipment and appropriate software,

Telecommunications links with Internet connections,
Technical assistance and training,
Access to relevant content,
Access to affordable equipment.

The ITU's (International Telecommunications Union) Telecommunication Development Bureau (http://www.itu.int/ITU-D/) has well-established programmes to facilitate connectivity and access, foster policy, regulatory and network readiness, expand human capacity through training programmes, formulate financing strategies and e-enable enterprises in developing countries. This is a winning combination for bridging the Digital Divide."

http://www.ananova.com/news/story/sm_366562.html describes how the Digital Divide is also being financially addressed by a $1.5 billion World Bank plan, to use the internet to help developing countries speed up knowledge acquisition rather than becoming victims of a 'digital divide'.

In a report by the Rockefeller Foundation on communication for social change (http://www.devmedia.org/documents/Position%20paper.htm), interest is shown by a wide range of people to know more.

Therefore, addressing the digital divide is perceived as important and the problem is already receiving action.

The Need for Information

Technology Needs of the South

In a research proposal by the Commonwealth Network for Information Technology (http://www.is.lse.ac.uk/ifipwg94/ifipnews.htm#3), problems associated with telecommunication structures in developing countries are discussed. It claims that even in areas with good telecommunication structures and skilled people, progress is slow and many initiatives flop. The most important reasons are probably related to the perceived needs for data, information, and/or information technology. Local communities are often too occupied with their daily struggle to survive to engage in such activities without compelling reasons.

Successful development of information systems in complex environments must be based on decentralised, flexible strategies, with data/ information and experience-sharing catered for through conversion routines, gateway technologies, interconnections and transition strategies.

The diversity and adaption of technology for the South also features: we need information infrastructures to focus on efficiency, competitiveness, sustainability, and democratization, with potentially massive impact on living conditions and it must be done using a telecommunication structure varying from VSAT and fiber optics to manual exchanges, and with educational levels varying from Ph.D. to illiteracy. Information infrastructure and technology is not culturally and socially neutral; it must be adapted to its environment to be useful.

The direct and indirect participation of grass-root communities and local administrations in existing and future information infrastructures are necessary elements in the drive for democratisation (empowerment), economic/social development, and cultural understanding. Successful development in these areas will in turn reduce the possibility of violent conflicts over resources or power in the future in any country.

It is necessary to transfer and adapt both system development products and processes to developing countries. Furthermore, the transfer of both products and processes must continue during domestic diffusion. A successful process in one community, yielding relevant products, must not be used as a product-oriented blueprint for other communities, but as a more refined and better-adapted product and process. Participation and flexibility in development, in data collection and database maintenance, in dissemination all these process aspects contribute to local activism, 'system ownership', and ultimately system sustainability.

The need for community communications

A report by the Rockefeller Foundation (http://www.devmedia.org/documents/Position%20paper.htm) argues that communication for social change is a distinct way of doing communication – and one of the few approaches that can be sustained. Such sustainability is largely

due to the fact that ownership of both the message and the medium – the content and the process – resides with the individuals or communities affected.

They believe that this approach can help make greater contributions to the pace of development.

Present and Future Usage of Technology

How communication for development has changed

(http://www.devmedia.org/documents/Position%20paper.htm)

New technologies represent a huge opportunity for many participants in the communication for social change initiative: The capacity for people and organizations in developing countries to communicate information -- their aspirations, demands, experiences, analysis -- becomes cheaper, more powerful and far more pervasive.

Nevertheless, we also recognize the limitations of these technologies. In particular, the "information gap" between rich and poor is stark.

Communication for social change is part of an evolution of communications methodology that can help accelerate global development. The process began in the first quarter of the 20th century with the use of publicity tools to bring attention to social problems such as hunger and disease. It grew to a reliance on public relations as a means of identifying stakeholders and creating programs to fit the audience's interests. More recently, social marketing took center stage – where sophisticated marketing and cause-related advertising tools were applied to influence individual and societal behaviors – such as convincing couples in poor nations to use contraceptives. This was followed by development communications and strategic communications, the latter which rightfully considers communication to be a process rather than as a series of products.

How communication is used (is it enough?)

(http://www.devmedia.org/documents/Position%20paper.htm)

Communication programming has, very simplistically, tended to fulfill three roles in development thinking and practice:

- To inform and persuade people to adopt certain behaviours and practices that are beneficial to them (persuasion and informing).
- To enhance the image and profile of the work of organizations involved in development with a view to boosting the credibility of their work, raising more funding and generally improving public perceptions.
- Used on a more targeted level within communities to enable community consultation over specific initiatives.

The Rockefeller Foundation argue that these traditional approaches to communication are generally insufficient in addressing the reality of the development problems that exist, and they do not always reflect the complex changes in the communications environments taking place in many developing country societies.

Communication can play a much greater role in enabling people to take control over their own lives, in enabling people and societies to set their own agendas in relation to political, economic and social development; and in enabling, in

particular, the voices of the economically and politically marginalized to be amplified and channeled to mainstream public and political debate.

The changing media: Media liberalization and deregulation

http://www.devmedia.org/documents/Position%20paper.htm describes how monopoly broadcasters have presented a convenient way of communicating simple messages to huge audiences through one medium. In much more fragmented media environments, this opportunity no longer exists and reaching the same audience requires putting messages out through many different media, and adapting it to many different audiences.

At their best, however, commercial, community and, in some cases, newly invigorated state-run news and media organizations have managed to attract large audiences with compelling, popular and informative programming. In Kampala, Uganda, the FM station Capital Radio attracts some of its highest audiences for its Capital Doctor program, which provides advice and information on issues of sex, HIV/AIDS and other health issues. In South Africa, a form of "edutainment" – "Soul City," set in a Johannesburg township -- has become one of the most popular soap operas in the country, yet has succeeded in educating people about diarrhoea, HIV/AIDS and other issues.

Again in South Africa, deregulation has spurred the creation of more than 80 community radio stations broadcasting in 15 languages. Community stations have made serious inroads into the broadcast markets, often stealing audiences from the well-established public broadcasting stations.

Finally, the last decade has seen an explosion in satellite broadcasting. Take the South Asia region, home to one-fifth of the world's population which is today within the footprint of at least 50 broadcast satellites. In India, Pakistan and Bangladesh alone there are more than 70 million households with television sets, adding up to a total viewership of 300 million. By 2007, there will be 550 million television viewers in these countries. Half of them will be hooked up to cable – able to watch the 350 channels that will be available to them by then.

Reaching lots of people with prepared messages is becoming more difficult and more expensive.

Communication for Development and Democracy

Videazimut (http://videaz.tao.ca/) is an international non-governmental coalition promoting audiovisual communication for development and democracy.

It is the International Coalition for Democratic Communication, and includes:

The Southern Africa Communication for Development

- Deep Dish TV
- Media Democracy in Korea
- Bundesverband Offener Kanaele
- CENDIT
- Community Media Network of Ireland

- Open Window Network
- Al Quds Television Productions
- Fundacion Cine Mujer
- Forum for Citizens' Television

They are all in their own way working to advance democratic communication in the audiovisual sector.

Videazimut links people and organisations working in both the North and the South in independent and alternative video and television, and others who are in active agreement with Videazimut's Declaration of Principles. They are united by their interest in democratic communication and communication for development.

The Future for Communications in Developing Nations

The interaction between communication and the social well-being of people in developing countries will be radically redefined over the next few years. Global economic liberalization of communications, the deployment of the Internet, mobile telephony and other new technologies and the changing political environment in most developing countries are all coinciding to make the cusp of the new millennium a defining moment which will determine how successfully all countries, especially developing nations, adapt to and exploit these changes.

Projects and organisations expect technologies to change, as shown by the Agencia Informativa Pulsar project in Ecuador (http://www.rdg.ac.uk/AcaDepts/ea/AERDD/Csds.htm). One of the goals of Pulsar is to promote new communication technologies to enhance the subscriber network and create awareness surrounding ICTs. The technology used should be evaluated over time with a view to its appropriateness and to making use of new technological developments.

A new model of communication could be emerging from a mixture of political, technological, economic and social change. It is decentralized, pluralistic and democratic; it seeks to empower rather than persuade people; it fosters debate among and between citizens, among and between communities, and between people and government. This model envisages increasingly horizontal communication allowing people to communicate with each other easily and inexpensively. It also involves the steady disintegration of traditional monolithic vertical lines of communication, where governments owned radio and television stations in order to control flows of information.

The 2002 annual report of the Inter-American Human Rights Commission's Special Rapporteur for Freedom of Expression (http://www.ipsnews.net/interna.asp?idnews=22659*) reported community radio to be a crucial source of information, abandoned by the mass media:* "Radio stations that style themselves as community, educational, participatory, rural, insurgent, interactive, alternative, and citizen-led are, in many instances and when they act within the law, the ones that fill the gaps left by the mass media;

they serve as outlets for expression that generally offer the poor better opportunities for access and participation than they would find in the traditional media,".

Community Media in Kenya

The Community Media Programme is part of The Communication Initiative (http://www.comminit.com/streview/sld-5237.html). Its primary objective is to promote the development of community-based media in Kenya, east Africa and the east and southern African sub-region. The premise is that media owned, controlled and produced by, for and about communities can serve as vital for a for debate on development, governance and human rights at the local level as well as for the preservation and promotion of local culture(s) and indigenous knowledge. Such media also can provide critical two-way conduits for the flow of information between the local level and the national and international levels, enabling communities to feed issues of concern to national and international policy-makers and vice versa.

The Kenya Community Media Network (KCOMNET)

The Kenya Community Media Network (KCOMNET) is a national network of individuals and organisations interested or involved in participatory, community-based media for development and democratisation. Formed in November 1995 at a sub-regional workshop on community media convened by EcoNews Africa in Nairobi, the network comprises professional media workers as well as community-based and non-governmental organisations dealing with information, communications, development, civic education and human rights.

The Role of Community TV

(http://www.openchannel.se/cat/index.htm)

Community or public access television is still a quite unknown alternative to privately or government-run commercial or public service television. However, this local television *"run by the citizens for the citizens"* is now expanding in several countries. Some of the reasons might be that fully-professionalized television has become too much streamlined with a heavy load of a one-way information and entertainment output depriving the viewer of the communication process. Community channels provide an electronic forum to express social and political concerns, as well as the opportunity to share valuable information with friends and neighbours. There is a need to put television in the hands of the common citizen.

All access channels are carried by cable except in Australia, Denmark, France, New Zealand and the U.K. where Community Television is broadcast by air (UHF).

Some access TV channels are run closely together with community radio channels on FM especially in Germany. Many U.S. community access TV

stations are also becoming more involved in using the Internet web and email. In the near future community access will mean a convergencial usage of three media - television, radio and Internet. Already television programmes are "aired" worldwide through Internet.

New technique such as Digital Video (DV) will support this development. We are now able to run a local TV station equipped with small digital 1,000 dollar video-cameras and PC or Mac based editing. In fact the whole editing process can be made on a laptop computer *(as the Apple PowerBook G3 with the Final Cut Pro software).* Distribution will not only be made by cable but also by low-power UHF, microwave (MMDS) and Internet webcasting. Local television will go global. The limits will be political, not technical!

In June 1996, the U.S. Supreme Court ruled unconstitutional a provision in the 1992 Cable Act that would have allowed cable operator to remove "indecent" programming from public access channels. This was a landmark decision for the development of democratic television.

Example of how technology in developing countries does not reach the poor: The African Virtual University

(http://news.bbc.co.uk/1/hi/special_report/1999/10/99/information_rich_information_poor/466651.stm)

The World Bank-sponsored programme has broadcast over 2000 hours of instruction to over 9000 students in all regions of sub-Saharan Africa. The initiative has allowed AVU students to take courses given by professors from world-renowned educational institutions in Africa, North America, and Europe.

That does not impress Ethiopian Meghistab Haile: "With that money just imagine how many lecturers you could have. If the World Bank is really wanting to help African universities then the first step would be to encourage and support the Africans to return back. In the end it is only the Africans who could solve their problems."

Others complain that high-tech education - available only to a select elite - is not worth it when so many places on the continent are still without electricity and running water.

Experts estimate that the Internet will be virtually global in five to seven years. But for that to happen infrastructure must be put in place, which means a lot of money - and fast.

Summary: Technologies for Communicating Information in Developing Countries

As technology has developed, more varied and accessible forms of communication have evolved, in particular, digital technology. These can be harnessed to improve the livelihoods of people in developing countries, and also bridge the digital divide. The traditional uses of communication for development

have not always involved the local people. Therefore, the future for development is through encouraging and facilitating communication between local people (horizontal communication). It involves "returning" research and analysis to where it originates.

This type of communication has been applied through community radio, community television, telecentres, and the internet. These will be discussed in more detail later.