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**Bridging the digital divide:
libraries providing access for all?**

FREEDOM OF ACCESS TO INFORMATION AND THE DIGITAL DIVIDE: THE ANSWER'S IN THE PALM OF YOUR HAND

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INTRODUCTION

Freedom of access to information is a beautifully simple concept that presents enormous complications in practice. The world is full of hindrances to freedom of access, some of them small and merely annoying and others massive and seemingly insurmountable. There are also facilitators of access: social, psychological, political, legal and technical. Information technology is a great facilitator of access, but its effects are almost always exaggerated. Information does not reach people in some magical way once a technology is developed. Technology has to be appropriate and it has to be taken up and sustained by those for whom it offers benefits. This paper will argue that among the many contributions to freedom of access, cell phone technology (something which you can hold in the palm of your hand), offers unexpectedly large benefits. In particular it offers some first solid steps towards bridging the so-called digital divide. To show why this matters and why cell phone technology offers such important potential, it is worth going back to the basic principle involved and its implications.

FREEDOM OF ACCESS TO INFORMATION

First of all, the concept comes to us with the endorsement of the United Nations' Universal Declaration on Human Rights. In Article 19, the Declaration deals with Freedom of Expression. Within the article it makes it clear that this includes both Freedom of Opinion (logically a right that precedes expression and makes it possible) and Freedom of Access to Information (which follows from freedom of opinion and expression). What it says is that freedom of expression includes the right to seek, receive and impart information and ideas, through any media and regardless of frontiers. These words make it possible to think of Article 19 as a rationale for library and information work of all kinds. Library users seek information and ideas: librarians seek on the users' behalf. Unrestricted receiving of information and ideas are a necessary consequence of that seeking if it is to have any point at all. For the librarian to be able to impart information, and for the user to be able to disseminate it further are also essential aspects of the work of information professionals.

What Article 19 does not tell librarians is precisely how they should achieve all this seeking, receiving and imparting. IFLA, through its Freedom of Access to information and Freedom of Expression (FAIFE) core activity, has sought since 1997 to promote and protect the principle, so that librarians can work out the necessary ideas and policies that will make up an access-based librarianship. (Sturges, 2009) The FAIFE

Committee and its Chair, Kai Ekholm, have the responsibility to take the principle out to the profession and they have done so through policy statements, publications, lectures, conference presentations and, more recently, workshop events. FAIFE's workshops have been supported in the period 2005-9 by a grant from Swedish Sida. This has made it possible to write and pilot learning materials and to train trainers through the developing world. The first workshops were on the IFLA/UNESCO Internet Manifesto, and Access to HIV/AIDS Information. Subsequently a broader Public Access to Health Information set of materials has been developed, and materials on Transparency and Good Governance have also been completed and piloted (<http://www.ifla.org/faife/policy/transparency-learning-material.htm>).

FAIFE's work is just a small, but significant, contribution to the global movement to establish freedom of access to information as a human right. Some countries embed freedom of expression in their national constitution (though many that do this also proceed to act as if they had not). Probably the most serious and well-considered statement of this kind is the new Article 100 of the Norwegian constitution (Norway, 2005). This not merely reasserts the principle, but accepts the state's responsibility to 'create conditions that facilitate open and enlightened public discourse'. This is an enhanced and more explicit version of the principle stated in the First Amendment to the United States constitution. The First Amendment started out as a statement in defence of the press, but has been amplified by the courts to the rank of a comprehensive protection for all kinds of 'speech'. Essential as such statements are, to function effectively they require supporting legislation that facilitates access. With this in mind, over 70 states now have freedom of information, or access to information, laws that give people the right to see official documents. A typical, and typically flawed, example is the UK Freedom of Information Act, 2000, which is very effectively explained and its inadequacies exposed by Brooke (2005). The law, however, is only part of the answer: a range of information access facilities including libraries characterise any state that is truly friendly towards expression and access.

Such states are undoubtedly in a minority globally and even most states that present a good surface have a substructure of institutions and practices that restrict and censor. Controls on press and media, through licensing systems and laws on defamation and 'correct' reporting of the news, exist almost everywhere, and monopolistic ownership of media outlets (notably the Berlusconi media empire in Italy) reinforces this. The censor, however, does not have to impose state controls for much of the time as expression is so often strangled at birth by social convention and the stultifying influence of priests and preachers of religion. The Internet, which seems to promise a realm of freedom for information and ideas is filtered by families, educational institutions, libraries and states. The People's Republic of China may not be the worst violator of Internet freedoms, but with its hundreds of millions of users it is certainly the most significant simply because of the number of people affected. For up to date information on violations of intellectual freedom that impinge on libraries we can turn to FAIFE World Report Series, now available in online form. (IFLA FAIFE, 2007) What this will not tell you, because it does not actually set out to do so, is the extent to which a digital divide limits the freedom of access obtainable by the poor of the world. It is the digital divide that is the central concern of this paper.

THE DIGITAL DIVIDE

Whilst the digital divide affects poor people globally, the ratios are reversed between the North (where a minority are information-disadvantaged) and the South (where the majority are disadvantaged). There is a substantial literature on the divide to which Norris (2001) is an introduction, but a simple set of figures makes the point with little need for elaboration.

Internet Users as % of the Population

Global 25% (consisting of)

North America 74%

Australia/Oceania 60%

Europe 52%

Latin America/Caribbean 30%

Middle East 28%

Asia 19% (from nearly 4 billion)

Africa 7% (from nearly 1 billion).

(2009 figures from ITU and other sources)

There have been many attempts to suggest means of bridging the divide, of which Gebremichael and Jackson (2006), Gymafi (2005) and Mutula (2005) can serve as a sample. There are large scale projects that aim to make a difference by distributing computers in the developing world, such as the efforts of the Bill and Melinda Gates Foundation (with which IFLA works in close collaboration). Perhaps the most ambitious was the telecentre project Mission 2007, which set the shortest possible timetable to ensure ICT access in all of India's tens of thousands of village (Mission 2007, 2006; Garai and Shadrach, 2006).

The telecentre movement has undoubtedly made a contribution towards bridging the divide for millions of people, but there are questions about it that need to be asked. The ICT4D (Information and Communication Technologies for Development) movement that set up kiosks and placed computers in poor communities was very much donor led. After the initial rush of enthusiasm, it emerged that the anticipated benefits were not being obtained at anything like the level that had been hoped. Furthermore, the sustainability of the telecentres was very much in question. Computers have a limited life span and once they needed replacing, who was willing to pay? Local communities, it emerged, generally could not, or would not. What is more, there seems to have been a rather facile assumption that conflated the availability of information technology with the availability of information content. The computers in the telecentres may not have been delivering good access, simply because the information that people really wanted was not out there on the web, or it was hard to trace and interpret.

The problem with telecentres is that for the most part there was no adequate response to the two key questions. The questions are:

What content do people in developing countries actually want?
What is the best way to deliver that content to them?

The answer to the first question should be simple, but attempts to answer it have been few. Any search for research literature on expressed information needs in the developing world results in great disappointment. The studies are few and far between and, what is more, they include a high proportion of painfully bad research. The answers given to the second question are equally disappointing. The whole telecentre movement was based on the assumption that what worked in the industrialised countries would be equally efficacious in the less developed South. So, can we offer better answers?

There are a few good surveys of information needs in the developing world (meaning surveys where the investigators listen without suggesting), where we find simple basic answers. In fact the pioneering work of Aboyade (1985) has not really been surpassed, although Sturges and Chimseu (1996) did expand the focus a little, and occasional studies since have the ring of truth. Musoke (2007) is an outstanding example in an otherwise unhelpful literature. What we can say in general is that poor people in developing countries value information as a support to formal education, and they also look for entertainment in many forms of content such as, poems, stories, songs, moving pictures and games. To these unremarkable findings we can add that they want information to ameliorate the difficulty of their lives in matters of money, business, and health; opportunities for assistance from government or NGOs; and similar practical areas. At present there are difficulties with most of this because of a range of problems including: government neglect; people's frequent physical isolation from services and agencies such as schools, clinics, community centres and libraries; corruption that leads to the withholding of information for financial gain; and people's lack of information skills (including literacy itself). All of these need to be addressed and telecentres make a contribution, but only a limited one. The answer to the second question opens the door for cell phone technology to provide a solution.

RESPONDING TO THE DIGITAL DIVIDE

The way in which people in the developing world prefer to receive information content is orally. Nothing in the literature contradicts this and observation in developing countries amply confirms it. Talk, both for simple sociable pleasure, and for serious exchange of information is everywhere during all the waking hours. Talk builds on the corpus of oral indigenous knowledge, but it also transfers current information swiftly and acceptably. It does, however, have its drawbacks. It is limited by human contact opportunities: in other words if you cannot meet someone face to face you are dependent on secondhand information, or you do not receive information at all. Although the oral mind is more attuned to passing on information accurately and fully than the print-focused mind of the industrialised countries, oral information nevertheless can be imprecise and incomplete. Information also tends to be garbled in transmission, so that it deteriorates over time and distance. What is more, oral transmission can be manipulated by the selfish and unscrupulous who seek to benefit from rumours and half truths. What would be ideal would be a mechanism to amplify and speed up oral communication.

Such a mechanism exists in the form of the cell phone and the population of developing countries has shown its whole-hearted acceptance of this technology. (Deen, 2008) In 2004, or thereabouts, the number of cell phones in Africa overtook the number of landlines. At the beginning of 2010 there were over 280 million cell phones in Africa (in contrast to a meagre 67 million Internet users, most of whom did not actually own their own computers). What is more the rate of increase of acquisition of cell phones is still on a steep upward graph, suggesting that many people are already replacing and upgrading their phones. All this has directly followed from the deregulation of telecommunications in great numbers of developing countries, which has freed up the technology in a remarkable way. Before this governments owned the telecommunications systems, with unfortunate results. Telephone service and Internet access were a disaster in the days of state monopoly telecommunications systems. The deregulation that has led to a range of companies offering services in most developing countries has enabled major global corporations to gain entry into local markets, often as joint ventures with local business. Whilst this still keeps power over technology distant from its ordinary users, in practice people now clearly feel a sense of ownership of telecommunications technology that they never did before.

The idea that information and communications technology can be ‘owned’ in a developing country is not a straightforward one. Certainly institutions and individuals can own devices such as computers, telephones and radios, but only with the mobile phone (and radio to a lesser extent) is mass ownership a reality as yet. The average cell phone users in the poorest countries do not have sophisticated devices. Despite this it is clear that the benefits of the cell phone are disproportionately significant for poorer users than for the rich; because the cell phone is just about the only alternative available to them. Even in the poorest countries, where most kinds of ICT are prohibitively expensive, there is innovation in the repair, modification, hiring and downright hacking and piracy to bring down prices of use and allow unintended means of use. A whole culture of back street cell phone repair and modification, phone sharing and ingenious methods of economical use has been observed emerging. The wayside cell phone kiosk is now a familiar sight on the roads of developing countries. This is a true form of localisation and ownership even if the information technology corporations, the law courts and international trade tribunals would not agree. Deregulation of telecommunications has proved an essential starting point, but the way in which this has been followed by local assembly and manufacture of devices and the emergence of local backstreet repair facilities is arguably as significant.

It is reasonable to suggest that societies that are still oral, or at least partially oral, will respond most favourably to technology that mirrors and reflects back at them their own most natural mode of communication. Thus radio and telephones make sense to people in ways that onscreen technology may not. At present the world has billions of people whose essential modes of communication and understanding can best be served by technology that recognises the supremacy of the oral. The cell phone does this. The cell phone is a technology that people can see actually helping them in their everyday lives. Contact with friends and family is not merely a matter of sociability in the developing world – it enables people to lock into the networks of mutual assistance and private credit that sustain so many of them, in a swift and easy way. Contact with comparatively distant officialdom is also made more possible. The

illiterate are made more equal by the cell phone. When we add text messaging to the equation, we are at the beginning of a sequence of technical enhancement that seems to have little limit. The phone is desired for status and sociability, but along with that it brings much of what was promised (without fulfilment) by more powerful but less accessible technology. Examples of just how this works are beginning to appear in the press (the quality press with an interest in development issues) and on development-oriented websites, and there are some academic studies. Three examples will be discussed here to illustrate just a little of what is happening.

THE CELL PHONE IN ACTION: THREE CASE STUDIES

Grain markets in Niger

The North African state of Niger is one of the poorest countries in the world on most development indexes. The majority of the population of Niger lives at subsistence level, relying on supplies of the staple grains, sorghum and millet. (Aker, 2008) These grains are locally grown and sold in a network of local weekly markets. Prices to the consumer in the markets have always been dependent on the supply of grain for sale and the level of demand from the consumers. In practice this meant that when a market was poorly supplied because of local shortages of grain the prices rose, to the obvious disadvantage of the ordinary family needing food. On the other hand, where supply was plentiful, prices fell leaving the supplier dissatisfied. Each group of suppliers and consumers was limited by the conditions in the market to which they went to do business. What has emerged is that since suppliers and consumers have acquired cell phones they have begun to use them to check not only prices and availability of grain in their local market, but also the equivalent situation in more distant markets. A supplier with plentiful quantities of grain now knows where there is need, and higher prices, and can make arrangements to transport supplies to that location. The suppliers benefit from better prices and the people who need grain benefit from falling prices in well-supplied markets. The cell phone has proved itself a powerful economic enabler at this micro level not only in Niger, but throughout the developing world.

Financial transfers in Kenya

Even in a comparatively prosperous developing country such as Kenya, the lives of the overwhelming majority of the population are seriously hindered by the financial difficulties they experience. (Szustek, 2009) This does not only mean all the unremediable problems of poverty that wreck individuals and families, but it also means problems that can be put right if family and friendship networks of credit can be successfully accessed. A cousin in the capital or a family friend in London or New York is a resource that can legitimately be approached for a loan or gift. However, for the tens of millions of people who do not have a bank account or who live at a distance from a bank or money transfer office (such as Federal Express) this is not an easy resource for their very pressing immediate needs. In response to this massive problem a system called M-PESA, which began in Kenya in 2007 and has now spread to some other countries, uses cell phone technology to offer convenient money transfers. In response to a request for help, or indeed for business payments, a cash deposit can be made in an accredited M-PESA office (probably a local shop).

Payment of the sum involved can then be authorised by cell phone at an office convenient for the recipient. Of course there are still problems. The shop in a remote village where most of the M-PESA traffic is in the form of payments out may find it difficult to stock sufficient cash to keep up with need. There are stories of local agents cycling for hours to a bank to get the days' stock of cash for their shop, but at least there is now someone doing this on behalf of users. For ordinary people it has meant reliable payments when they would have otherwise struggled to obtain the money they needed to cope with some disaster or take advantage of some business opportunity.

Managing the extended family in The Gambia

The extended family tends to depend mainly on one member who is engaged in business or who has some kind of salaried occupation. Children, grandchildren, grandparents and an entourage of more distant dependent relatives pursue a variety of activities including studies, gainful employment, child care, domestic chores, and other support activities, such as running errands, for the family. Although the main breadwinner may be occupied for very long hours, the rest of the family turns in his/her direction for guidance on their lives, permission to do things, and management of their contribution to the family. Research in The Gambia shows how the cell phone has expanded the scope of this management (and, to be frank, control), but it may be that only the head of household is a true phone user. (Harvey, 2009) The others may have been given phones but only have the capacity to receive calls and 'beep' to indicate that they need to communicate. On a daily basis cell phone contact may be used for decisions over what foodstuffs to buy for the evening meal and feeding everyone during the following day. Awareness of how much money the breadwinner has to hand, when he/she can get to the market, and maybe ideas on what is on sale where and at a reasonable price can all be discussed by phone. The time, money and energy saved by a call or two has a disproportionately positive effect on the lives of a substantial number of people.

CONCLUSIONS

The cell phone is a source of sociable pleasure, but it is so much more in the context of digitally-deprived developing countries. The people of the South have perceived that a whole range of practical benefits, of the type outlined above, can be obtained from what is very basic information and communications technology. The cell phone in the developing world is chiefly a voice device, although SMS facilities add a vital extra dimension. The cell phone has broken through dramatically in market terms even without the addition of the multi media facilities and Internet connection that are becoming standard in the industrialised countries. The important thing about this is that the people of developing countries know with great certainty that the cell phone works for the very specific circumstances of their lives. Information kiosks with Internet connection and hardware provided by development projects never began to achieve such acceptance, despite very considerable external investment and effort. The pessimism about the information environment that drips from a phrase such as 'digital divide' has been defied by endogenous processes largely independent of the donor community. This is a triumph deserving to be celebrated, but a word of caution is necessary. The success of the cell phone in the developing world depends to an

uncomfortable extent on an oligarchy of business corporations that provide phone service and hardware. Their business policies need careful scrutiny from all those who are impressed by this unusual and significant instance of genuinely sustainable development rising up spontaneously from within the countries of the South.

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