Chapter 2

Take Five:
A handful of essentials for ICTs in development

Alfonso Gumucio Dagron

The point of the lance

New information and communication technologies (ICTs), especially the Internet, have shown a very rapid development during the past ten years. The number of Internet users has been doubling every year since 1995. No other ICT in the past has, by comparison, developed so fast. Radio took several decades to be adopted in the isolated and poor rural areas of the world until it became the most important means of communication for many marginalised communities. Television is still struggling to reach the periphery, through a combination of cable and an array of satellites, although portable video has proved its efficacy for educational purposes. The Internet, in its own right, has become fashionable and is being put forth as the "point of the lance" of a technological revolution that also claims to be a social revolution. We will see to what extent this might be true.

Symbiosis

The most important and interesting issue relating to the rapid expansion of new ICTs in Third World Countries[1] is not the Internet itself, but the potential of its interaction with other electronic media, such as radio and eventually television. This "convergence" is, no doubt, the best option for the future. Internet-based technologies will have to learn from the fifty-year experience of community radio, if they are to become the tool for social change that it is hoped. Likewise, radio and television will certainly benefit from the speed and reach offered by the new ICTs. This symbiosis is already changing the approach to technology development in industrialised countries, but the social concepts that should be embedded are lagging behind.

Radio is the most impressive communication tool for development, especially in the rural context. It is not only an important mechanism for the diffusion of development information in local languages and over widespread and remote geographical areas; it is also a great tool for reinforcing and strengthening cultural expressions and identities. Moreover, it can be a platform for democratic discussion and pluralistic expression of ideas and aspirations of rural communities, as well as a means to raise awareness on social issues and to collect data on local development issues. It can contribute to the development of local pride through the reinstatement of community memory and history.

Can the new ICTs do the same? They should and they must, if they are to be sustainable and to contribute to social change and development.

ICTs – Field of Dreams

New ICTs are hailed as the long-awaited solution for the poor of the world. Some, either too optimistic or not very conversant with actual experiences in the field, are even talking about the "dramatic opportunity to leapfrog into the future, breaking out of decades of stagnation

---

[1] I prefer to use the term "Third World" rather than "developing countries", a fashionable way to call many countries that have actually been going backwards in terms of economic and social development.

and decline."[2] The argument is that ICTs can easily convey to the marginalised, poor and under-developed, the truth about development and the information that will enlighten them to take, on their own, the steps that will improve their condition.

ICTs are seen as the fire of knowledge graciously brought to the damned of the world by the wise Prometheus of industrialised countries.[3] However, this modern Prometheus should know that the attempt is too similar to the failed *diffusion of innovation* trend that was fashionable in the world of agricultural development in the sixties. As Kunda Dixit wrote:

> *Like the fashion business, the Third World development debate seems to go through fads and styles. Mantras come, and mantras go. The latest buzzword is "knowledge". The world is now a Knowledge Society, we are told, and the global gap between know and know-not is growing, therefore the only way to give the poor the chance to catch up is to pump in more knowledge with computers and through the Internet.[4]*

Among the risks, adds Dixit, is that "the knowledge hype may tempt us to regard only formal modern knowledge systems as worthy of attention."

A bit of historical perspective could help to avoid the same old mistakes and to better understand the deep roots of poverty. The real causes of underdevelopment are social injustice, exploitation of poor countries by rich countries as well the poor within each country by the rich upper classes that control government, financial institutions, services and the productive sector. Knowledge alone will not change that situation.

"*If you build it they will come*".[5] In the field of dreams of ICT promoters the picture is rather simple: ICTs and Internet connectivity are *per se* the solution for poverty and underdevelopment. Place computers and connectivity at the reach of the poor and they will magically defeat poverty. Some international consultants feel good when they arrive at the most isolated villages of Mali or Bolivia with a laptop under their arm. They show the magic screen in action, the same way the Spaniards showed shiny mirrors to subdue the Incas or the Aztecs during the Conquest of America.

In the process of generating ideas – or appropriating them – academics, commercial wizards and development bureaucrats in Europe and North America love to invent new acronyms and buzz words, often to name what already exists. Now we are in the middle of a fashion of placing an "e" – for "electronic", before almost every substantive word: "e-commerce", "e-care", "e-learning", "e-support", "e-government", "e-mail", "e-forum", "e-groups"… They have gone as far as to introduce "e-development". Peter Ballantyne suggests that the "e" should stand for "effective", "empowered" and "efficient".[6]

Development is much more complex than planting ICT seeds in poor rural areas or marginalised urban neighbourhoods. If it were so simple, we would not have seen the dramatic events in Argentina early in 2002. A well-developed country, in the frontline of the adoption of ICTs and with a good telephone system and electricity service, is in the midst of a deep economic and social crisis, going backwards instead of "leapfrogging" into the future.[7] ICTs are not a magic solution for anything.

---

[2] The World Bank: "Increasing Internet connectivity in Sub-Saharan Africa", 1996.
[3] See Alfonso Gumucio, "Prometheus Riding a Cadillac? Telecentres as the promised flame of knowledge" in the *Journal of Development Communication*, Vol. 12, No. 2 (February 2002).
[4] Kunda Dixit, "Exiled to Cyberia" *Himal*, Vol. 12, No. 11 (Novermber 1999) <www.himalmag.com/99Nov/cyberia.htm>.
[5] Now a classic phrase from the Hollywood film, *Field of Dreams*.
[6] Peter Ballantyne: "e-Development: What's in a name?". <www.iconnect-online.org>, Dec. 14, 2001.
[7] In the early nineties President Menem decreed that Argentina was a "first world" country.

This is not the first time we have been confronted with the idea that technology is a panacea for economic and social change. Those who have been active in development during the past thirty years know very well the theories of *innovation diffusion*, by which underdeveloped countries would magically join the industrialised world through the use of modern technology graciously provided by international agencies. Behind this recipe was the assumption that knowledge is the privilege of industrialised nations, and that countries in the South just didn't have enough of it. It could only be that simple in the field of dreams of those who know little about the reality of Third World countries, but think they know what is best for them.

At the risk of repeating something that everyone already knows, we should remind ICT pushers that when we deal with technology we are only handling instruments, and we are not *per se* affecting the social, economic or cultural environment. A knife is just a knife, a tool that can be used to hurt someone or to carve a beautiful wood sculpture. Content and patterns of utilisation make the difference. A few organisations recognise this and promote a *social vision* of ICTs:

> *It is clear that ICTs are neither a sufficient nor a necessary condition for development. However, it is also evident that ICTs, primarily driven by commercial interests, are here to stay. It is therefore urgent that a social vision that puts the Internet at the service of development be strengthened. The social vision proposed rests on four central elements: 1) Going beyond connectivity; 2) Promoting enabling environments; 3) Minimising threats and risks; and 4) Maximising positive results. In the social vision proposed, ICTs are not inherently necessary or beneficial. The challenge is, precisely, to be able to tell when, and under what conditions, the Internet can contribute to development.[8]*

Development priorities are to be analysed – hopefully by the *beneficiaries* – before deciding which technology is appropriate, where and how. Communities should adapt technology to their needs and to their culture, not the opposite. In spite of this, let's not forget that most grassroots ICT experiences are less than five years old. It is too soon to claim victory and too soon to discard them, but not too soon to question whether they will be sustainable and benefit their communities after the external inputs withdraw. Today, ICTs in Third World countries are experiments with a potential. What is written in well-intentioned project proposals and triumphant reports to donors is one thing. What really happens at the community level might be quite another.

Let's look at our fistful of non-negotiable conditions for ICTs in development:

1. Community Ownership

Problems

A rapid assessment of the large numbers of Internet based experiences that have been developed in the past five years, namely the so called "telecentres", "cabinas públicas", "telecottages"[9], "telehuts", "digital centres", "information kiosks", "infocentros", "infoplazas", "information shops", "community multimedia centres"[10], "village knowledge

---

[8] Ricardo Gómez and Juliana Martínez, *Internet… Why? and What for?*, IDRC and Fundación Acceso, 2001. <www.acceso.or.cr/PPPP/index_en.shtml>.

[9] Telecottages emerged initially during the eighties in Scandinavia. The term is currently used in some countries of Central and Eastern Europe.

[10] These have been developed with support from UNESCO in Eastern and central Europe, and various countries of Asia and Africa (see chapter 6 for more information).

centres"[11] – among other names[12]– indicates that most of them were initiated with little regard for community participation and ownership. The contest between organisations, both public and private, to "connect" under-developed countries has resulted in the parachuting of thousands of computers into areas where safe water and electricity are not even available.

An assessment of ICTs for development conducted by the FAO in 2001 revealed that many projects are implemented without any consultation with the community. Among the findings:

- only a limited number of community-driven ICT initiatives were found and these had scarce visibility;
- participatory needs assessments are rarely performed prior to the establishment of telecentres;
- the emphasis is more often on providing access than on innovative ways of applying ICTs to the specific needs of communities and local groups;
- the priorities of many ICT projects tend to be influenced more by the interests of external organisations rather than community-based organisations;
- the thematic sectors applied often reflect an economic, market-related focus;
- there is a lack of local participation in the creation of content and selection of ICTs tools;
- there are many telecentres where computers are available but where a lack of awareness, ICT skills, and literacy hinder the process of local appropriation.[13]

We have all heard of ICT projects that have folded after one or two years because the computers were stolen or deteriorated so quickly that they needed to be replaced. This is more likely to happen when communities do not have the sense of ownership of the project and do not feel that the installations are essential to their social and economic development. It is not a matter of external supervision (although this may help), but a matter of community awareness and social appropriation of the project.

Challenges

The involvement of communities in ICT projects that are set up for their benefit – or any other project aiming social and economic development – is the first non-negotiable pre-condition.

In this area there is much to learn from the experience of community radio. We can not claim social change without community participation, and this should take place from the first discussions about the potential of providing ICT support to a particular region. It is certainly not enough to discuss with government authorities or even with local authorities. This may seem to be a good short-cut to get things rolling, but the short-cut syndrome that characterises some ICT pushers may do more harm than good. This is not a 100 meter race where speed is everything you need. Development projects are more marathons, and you will never finish if you use up all your energy in the first 100 meters. In the words of Simon Batchelor:

> *It has now been recognised by many people that working from the outside towards the centre is a recipe for unsustainable programmes. Programmes that consider local capacity start at the centre and plan outwards. Yet it seems that many ICT programmes and projects start at the outer edge of the*

---

[11] This is the name given to their telecentres by the M. S. Swaminathan Research Foundation (MSSRF) in Chennai (India).
[12] Many of them are just cybercafés, purely commercial ventures.
[13] Sabine Isabel Michiels and Loy van Crowder: *Local appropriation of ICTs*, FAO 2001. <www.fao.org/sd/2001/KN0602a_en.htm>

'onion', and with an acknowledged general need for information and communication, outside agencies put in significant resources. Computers are installed, infrastructure is established and some salaries are given to kick start the cost recovery process.[14]

As with any other development program, an ICT or community radio project should be first discussed and analysed with representatives from the communities. A good start would be to ask if they are interested. Many rural and even urban communities may prefer to have safe water and electricity first, rather than computers.[15] If community leaders, representing a wide range of social sectors (youth, women, traditional leaders, service providers, local authorities, etc.) believe that ICTs are important, the discussion should focus on how to develop the project and particularly, what will be the role and responsibilities of the community.

The community may donate the land and take responsibility for building and maintaining the premises to house the computers and/or the radio station; and may provide volunteers to run the project. We have seen this happen in the past with community radio stations in both rural and urban areas. If we look at the perspectives of sustainability from a point of view that is not restricted to income generation, we will find that community involvement and the development of a sense of ownership over the project, will also be the best guarantee to keep the equipment safe and in running condition.

There is an opportunity to contribute to the process of community organisation through an ICT and radio project or any other communication project that truly aims to ignite the process of social change. A local committee composed of representatives from the various social sectors could be formed to oversee the activities of the multimedia centre.[16] This local committee could also assume responsibility for conducting certain content-related tasks, as often happens with community radio stations, where the nurse is in charge of a health program, the teacher prepares a series on education issues, rural cooperative leaders arrange to find useful information for farmers, youth leaders deal with music and topics that interest their peers, and so on.

Simon Batchelor rightly criticises "planning like an onion" and points to the difference between development programs that are planned from the outside layers of the community, instead of from the centre. The arrogant attitude of planners convinced that they know best about community needs has resulted in decades of failures in development.

This is not to say that communities are always right and their word is divine. In development we usually learn the difference between the real needs of a community and the "felt needs". For example, communities may easily identify the need of water and roads, but not of immunisation or education (let alone ICTs!). The key word is dialogue between the community and the planners. Communities are seldom homogeneous or fully democratic; as any human group or society, they are fractured in groups of economic and social interests. The challenge is to support dialogue through a democratic process of participation.

---

[14] Simon Batchelor: "ICT capacity development issues" at
<www.gamos.demon.co.uk/sustainable/tfoa2/tfoa2.htm>.
[15] In north-western Romania, CREST – a local NGO, has established as a principle not to start a new telecottage unless the community really wants it and is ready to participate with some human and/or financial investment.
[16] The Community Audio Towers (CATs) in The Philippines, are managed by a Community Media Council made of representatives from the various sectors of the community: women, youth, teachers, nurses, traditional authorities, elders, etc, and it works well. For more information see the chapter in Gumucio,: "Making Waves: Participatory Communication for Social Change", The Rockefeller Foundation, 2001.
<www.rockfound.org/display.asp?Collection=3&context=1&DocID=423&Preview=0&ARCurrent=1>

2. Local Content

Problems

It has been said many times: 90 percent of the content of the World Wide Web is totally alien to 90 percent of the world's people. In terms of "providing knowledge to the poor", the purpose is defeated, unless the whole perspective changes. This contradiction is more obvious when we consider the usefulness of the web for rural communities in the Third World. High school students, teachers or professionals in Islamabad, Rio de Janeiro or Dakar may find the web very useful (particularly if they are fluent in English), but what about a woman working in a factory or a poor farmer? What in the web will interest them? Where is the knowledge they can use for their own benefit?

One of the illusions of the Internet is that because it has no central management, everyone is free to shape it according to their own needs. In fact, the Internet it is very much controlled by commercial rules. The World Wide Web today looks very much like cable and satellite television in terms of content. Years ago some thought that satellite and cable TV would bring a better choice of programmes and more diversity of information to the world. Today we know it only helped to impose the mainstream points of view, one image of how life should be, and a very narrow way of looking at society and reality. The rest of the world only appears as exotic images in adventure or scientific documentaries. The corporations that regulate information flows in industrialised and peripheral countries have captured Internet. To land into a small oasis of difference in the web, one must navigate through the most implausible labyrinths.

Several reports of telecentres or multimedia centres in Africa, Asia and Latin America indicate that the main users are students or teachers, not the poorest of the community. They also indicate that the main services that are used in a multimedia centre are the telephone, the newspapers, the photocopier, the fax and the computer; not the Internet or the World Wide Web. In fact, many of Africa's telecentres do not even offer Internet access. They are actually telephone call centres, perhaps with as computer or two available for word processing. When available, rural students and teachers may use the Internet to chat or send e-mail messages (if they have correspondents), but other social sectors, which account for the vast majority, approach the telecentre primarily to use the other services offered.

Challenges

The development of local content is the single most important non-negotiable condition for the use of ICTs for social change and material progress in urban or rural communities.

The web's ocean of "knowledge" does not correspond to the needs of the majority of the population. Different countries have different needs, and within each country – particularly in the Third World – the diversity of cultures and problems calls for specific approaches. We need to invent and multiply mini-networks, small geographical webs or local community networks to make the World Wide Web really wide and really useful for the majority of people on the planet.

Again, community radio can teach us much about local pertinence. Only the development of local content can establish a radical difference between the telecentres for social uses, and the cybercafés that cater to customers who already know what, where and how to look for the information they need. Cybercafés do not need to develop specific content because their customers correspond to the typical Internet user world-wide: male, under 35

years old, with a university education and high income, urban based and English speaking – a member of the elite minority for which the Internet is shaped.[17]

Cybercafés offer Internet access, but development-oriented telecentres also generate local and regional information, making it available to the community. "A telecentre may well become a key auxiliary to the school and clinic, offering continuing education for local teachers and nurses (and doctors, if any)."[18]

To cater their users – again following the example of community radio – several community-based ICT projects produce local content, appropriate to the specific population of peasants, fisher folk or other groups that are seldom taken into consideration by commercial cybercafés. Relevant examples include the Village Knowledge Centres in Chennai, India.[19]

It is not difficult to anticipate the symbiosis between community radio and the Internet. A handful of community based radio stations have taken the lead in taking advantage of the technological convergence. The Kothmale Community Radio, in Sri Lanka, is one of these that uses the Internet to respond to requests for information from its constituency. The station receives requests, searches the Internet, stores information with content relevant to the local communities, and broadcasts this information, translated into local languages.

3. Appropriate Technology

Problems

When we think that one in every three people globally lacks electricity and that safe water is a scarce resource in large parts of the world, we are reminded that computers are still a luxury. The fashion of planting computers all over the world is a very costly one. How much or how sophisticated technology do we need, for example, in a rural public telecentre? In Central America there are rural schools with fewer than 100 students equipped with five or six state-of-the-art computers, that are only used at maybe five percent of their capacity. What criteria, if any, are used to determine what hardware and software to buy?

Radio and television has also known – and hopefully learned from – the distortions caused by planners mechanically applying their experience in Europe or North America to countries in Africa or Asia. My personal symbol of waste and distortion in development communication projects, are the huge Outdoor Broadcast Vans that I saw in Burkina Faso in the 1980s and 1990s, abandoned in the backyards of radio and television stations with the tires flat and almost swallowed by surrounding vegetation. A few were still in working condition, not as mobile units, but as fixed transmission cabins. The whole purpose of mobility was defeated since the national broadcasters could never afford to operate and maintain them.

The lifespan of computer equipment is much more limited than radio equipment which can last ten or fifteen years. Computers rarely last for five years, and if they do last that

---

[17] UNDP Human Development Report, 1999.
[18] Scott Robinson, "Rethinking Telecenters: Knowledge Demands, Marginal Markets, Microbanks and Remittance Flows", in O*n the Internet*, Vol. 6, No. 2 (Fall/Winter 2000), a publication of the Internet Society <www.isoc.org/oti/articles/0401/robinson.html>.
[19] See, for example, the example of the Village Knowledge Centers in Chennai, India in "Letters from the field"; Balaji.V., K.G. Rajmohan., R. Rajasekara Pandy and S. Senthilkumaran: "Toward a knowledge system for sustainable food security. The information village experiment in Pondicherry." e-OTI – *On the Internet*: An International Electronic Publication of the Internet Society, March–April, 2001, pp. 32-37 <www.isoc.org/oti>; "Making Waves: Participatory Communication for Social Change", by Alfonso Gumucio Dagron; "Connecting Rural India to the World", by Celia W. Dugger, in the *New York Times*, 28 May 2000.

long, they are probably obsolete, unable to run new software or to communicate with other more recent models. How sophisticated should computers that are placed at new telecentres be, especially in rural areas with very little history and experience in handling ICTs? What percentage of the hardware and software capacity will be utilised during the two or three year lifespan of the equipment? Can the computers be repaired locally? Are spare parts available? Where can one buy a computer designed to last rather than to be replaced?

Unfortunately, the practice of development aid does not follow any critical path or reasonable criteria. Once funds have been allocated to a project, they have to be spent; even if that means buying inappropriate equipment. With major players in the development world, such as the Open Society Institute (Soros), the World Bank and USAID competing for territory and influence, we may not see things getting better soon; unless other international players such as IDRC, APC, IICD or OneWorld – better known for their substance than their funding resources – can positively influence the general trend.

> *The Internet is now being driven strongly by commercial forces and the Internet sector in developing countries is now highly competitive, profitable and likely to flourish, with or without the help of donors. Sufficient demand for the Internet exists even in the poorest countries to make it a viable, indeed highly profitable, venture. If the market is ensuring rapid Internet growth, donors and NGOs need to focus on ensuring access and benefits for the less advantaged.*[20]

Challenges

The third non-negotiable condition for ICTs for development and social change is the use of appropriate tools: Technology that is adequate to the needs of communities, not in terms of technical standards alone, but it terms of utilisation, learning and adoption.

The tools are appropriate when the community develops a sense of ownership, through a continuous process of appropriation of the project. This appropriation should not be understood as mere adoption of technology or the development of skills to handle hardware and software. The acquisition of skills is an important step, but not the final one. Other issues are important: management, production of local content, research methods, training and outreach activities, to name a few.

Why use a Rolls Royce to drive to the corner store for bread when a bicycle will do the job just as well and be more sustainable? ICT pushers do not seem to get this concept, in spite of the fact that it has been around since the fifties in the development world. The terminology of appropriate technology was born after decades of failures in huge development installations that became white elephants –useless and empty structures that were never put to work for the benefit of communities. There is a wealth of literature on the missed opportunities for development, and most has to do with top-down planning and large investments.

As is done with many small community radio stations, it may be reasonable to start a telecentre or a multimedia centre with the basic hardware and software, and observe for year or two to see if there is a real need to upgrade. New technologies offer a wide range of choices, but unfortunately very few planners or external advisors seem to consider them. Most are locked-in to Microsoft and expensive Intel-based computers, and do not even consider, for example, the Simputer – a computer developed in India to sell for under US$200, or Linux – the free operating system that can make any computer performs as a server.

---

[20] *The Internet and Poverty: Real help or real hype?*, Panos Media Briefing No. 28, April 1998 <www.oneworld.org/panos/briefing/interpov.htm>.

Nevertheless, for community radio stations converging with Internet, the needs might be more sophisticated. More speed, better connectivity and more memory and storage capacity are needed. It is more convenient to edit and store radio programs digitally. Computers are of enormous help for laying out programme grids and for limiting the manual handling of cassettes, tapes and CDs. Many small community stations in the Third World already have computers, and have used them to improve the technical quality of their work. Others have websites with information on programming and even stored or live audio programmes.

4. Language & Culture Pertinence

Problems

Only five years ago, about 90 percent of the total web pages accessible through the Internet were in English. Today, according to some studies, this proportion has been reduced to 50 percent. Of the 6 billion people in the world, only about 341 million speak English as first language. Spanish is the mother tongue of 358 million people, but is represented in only 5.62 percent of web pages.[21] English is not the most spoken language in the world, but it is by far the most represented on the Internet, to the point that websites in many non-English speaking countries of Europe and the Third World are often English.

This situation is quickly evolving. The Internet has been growing faster in Latin America than in the United States and Europe and over the past five years there has been a significant growth in the amount of Spanish-language content. This may be an optimistic signal for major modern languages, but what about the rest? Where in the web are the rest of the world's more than six thousand languages, and how many will disappear from the Earth before they appear in cyberspace?

Language is only the tip of the iceberg. Culture is the hidden mass of it. The rich diversity of cultures in our world is not represented on the Internet and the World Wide Web. Moreover, the expansion of the Internet in its current shape may be contributing to the annihilation of under-represented cultures. As a report from IDRC points out:

> *The content, language, class, and culture that dominate the Internet can have negative effects by generating a uniformity of ideas, preferences, and world visions. The illusion of increased democracy and plurality produced by the interactive capacity of the Internet may be misleading if it, in fact, reinforces existing relationships of centralized control and domination in society.[22]*

It is difficult to measure the presence of diverse cultures on the Internet, and some recent attempts are misleading and too subjective. The fact that very popular *Latin* singers or entertainment stars have an outstanding presence in Internet is not an indication of cultural diversity. How much do Ricky Martin, Antonio Banderas or Santana, artists known because of their success in the United States, contribute to cultural diversity?

If culture is in the soul of development and social change, how much more beautiful would be, for example, to witness the "Eighth Art" emerge from Internet, something so new and innovative and culturally adaptable that it can repeat the extraordinary feat of the other seven arts and truly help advance human values.

---

[21] Daniel Pimienta and Benoit Lamey: "Lengua española y culturas hispánicas en la Internet: comparación con el inglés y el francés", October 2001. At <funredes.org>
[22] Op. cit. Ricardo Gómez and Juliana Martínez: *Internet… Why and What for?*

Challenges

The fourth important non-negotiable condition for ICT projects in the context of development and social change is, therefore, language and cultural pertinence.

Without the presence of local cultures and languages, there can be no possibility of ICTs contributing to the progress of communities. Language and cultural identity are at the core of any successful intervention with ICTs.

History has taught us that it is healthy for cultures to mix and evolve through a process of dialogue and interaction. No great culture has ever remained "pure" or uncontaminated. Cultural interactions are responsible for some of the highlights of the advancement of humanity. However, the electronic age has made the terms of "cultural exchange" far too unbalanced, as uneven as those that characterise modern commercial exchanges. The rules of the game are dictated unilaterally. Cultures already weakened and divided are easily wiped out by the tidal waves of the market.

To balance cultural interaction in cyberspace is not an easy task. Even if we get to a point where more web pages are produced with content that is representative of our cultural diversity, we will have to make them visible. The web is more an ocean than a library. It takes a lot to fish the appropriate information, because, for example, most of the popular search engines prioritise the pages that recently had many hits, not necessarily the best pages on a particular topic. Many of the pages that pop up first are commercial sites that have paid the search engines in order to appear in a better position. It is hard for a website using a "marginal" language to be found, even by those who share the language, harder still if the subject of it is culturally irrelevant to the current mainstream.

This situation will only improve if more and better local content is produced. We need hundreds of thousands of new pages reflecting the diversity of cultures and languages, pages that revive the memory of communities, their collective history, their artistic expressions, past and current. Community radio has had this role during the past decades, and that is why it is so important for new ICTs to piggyback on its experience. The convergence of radio and Internet provides useful examples of how to create local content, relevant to local needs but also to local culture, and provide this content in local languages. The Village Knowledge Centres in India, Kothmale Community Radio in Sri Lanka and Púlsar in Latin America, are a handful of experiences from which to learn.

5. Convergence & Networking

Problems

Out of the blue, ICT projects are parachuted into places where there is no previous history of local participation in development initiatives, no convergence with other programs for development and social change or with existing community organisations or local grassroots media, and no networking with other ICT projects that share similar goals. Would it not be far more reasonable to search for institutional alliances with local organisations, with existing community media, with public libraries and schools, and with projects that are already affecting the social, political and economic tissue of the society?

Starting ICT projects with no connection to other initiatives has been questioned numerous times. "It is more beneficial to use ICTs to enhance existing practices than to promote new activities for the primary purpose of using ICTs. In this light, the creation of telecentres that are disconnected from existing community organisations and initiatives is unlikely to contribute to development."[23] Nevertheless, it continues to happen. This isolation

---

[23] Op. cit. Ricardo Gómez and Juliana Martínez: *Internet… Why and What for?*

of ICT projects from other initiatives with similar aims and perspectives may be one of the reasons for so many failures.

We also need to break the western concept of the isolated and closed relationship between the individual and the computer, and evolve towards the collective use of ICTs. Often, telecentre projects reproduce the pattern of individualism. There may be several computers and people in the same room but it does not change anything. From the point of view of sustainability it is crucial to think in terms of a larger community of networks of users with similar interests.

Various authors and organisations have noted the risk of building networks that separate human beings and establish patterns of communication that are mediated only by technology and not values. "Might the web of the future turn out to be a vast, fragmented network of isolated individuals –human bees in their cells– interacting with data instead of with one another?" asks the Pontifical Council for Social Communication.[24] "We must be sure that the virtual community is at the service of real communities, not a substitute for them," adds the Anglican Archbishop of Canterbury, Dr. George Carey.

Challenges

Convergence and networking are non-negotiable conditions for long-term sustainability. ICT projects that are converging towards other communication projects such as community radio have better chances to succeed, because they will be inheriting a vast quantity of accumulated experience and a whole history of development and participation. Similarly, initiatives using ICTs that complement existing social development projects, for the same reasons above, are more likely to be accepted by the community and to strengthen ongoing activities aimed at social change.

This brings to mind several important examples of convergence of ICTs and existing local institutions or media. In Peru, ITDG is supporting the InfoDes project, which is converging with rural public libraries.[25] Púlsar in Latin America used the Internet to feed regional news to hundreds of community and indigenous radio stations. We have already mentioned Kothmale Community Radio in Sri Lanka, and the Indonesian network of local radio stations linked via e-mail.[26]

Convergence between radio and Internet is the most promising, however it will face different challenges in the Third World and in industrialised countries. As Bruce Girard sees it:

> *It is clear that convergence will impact on broadcasters in developing countries in a very different way than in Europe and North America. While in the developed world there are predictions that new media and the Internet may soon become substitutes for broadcast services and distribution systems, in the developing countries this will not happen in the foreseeable future. Radio will continue to be the most important medium for the vast majority of the world's inhabitants and television will continue to have a recognisable form in the first years of the 21st century.[27]*

---

[24] Jim McDonnell: "Virtual Communities – a comment". *Cine&Media*, 3/2001.
[25] More information on InfoDes in "Making Waves: Participatory Communication for Social Change", by Alfonso Gumucio Dagron; and <www.infodes.org.pe>.
[26] Editor's note: The author is writing of a UNESCO-backed Indonesian network, not Radio 68H which is featured in this book..
[27] Bruce Girard: "Converging Responsibility, Broadcasting and the Internet in Developing Countries". <www.comunica.org/kl/girard.htm>.

Schools are another important platform for ICT development, not only because they exist even in the most remote rural areas of our countries, but also because in terms of skills, teachers and students are more likely to adopt the new technologies. It is important, however, to ensure the interaction with the community as a whole, to avoid creating a closed structure for a small privileged group.

If what we are striving for is development for social change, the convergence between ICTs and development NGOs has enormous potential. Many have realised this and are already developing a handful of valuable experiences. We are not referring to NGOs equipping themselves with computers and connectivity to better perform their tasks; there is no major feat there. The real challenge is to use ICTs as another tool in the development work, as the M.S. Swaminathan Research Foundation (MSSRF) is doing in Chennai, India. The project goes far beyond providing computers and connectivity to poor communities: it has an important component of developing local content in "value addition" centres, and enabling users to easily access information that meets their needs. The Village Knowledge Centres are a good example, both of converging tools and networking on the local level.

Known as "citizen networks" these are described by Steve Cisler as "Internet technology projects that benefit people as citizens rather than as consumers; projects that help marginalised groups have more control over their existence and even give them a stronger sense of identity. Citizen networks are about inclusion and how the technology can be used for democratic goals and for economic development."[28] In the same article Cisler mentions Manuel Castells, who believes that in our increasingly globalised world community networks are a key element in building social institutions.

Last but not least

I am aware of the potential of Internet for development because I am one of those privileged people in the world that:

1. Have electricity,
2. Have a phone line,
3. Have a computer,
4. Have enough to pay for the service provider, and
5. Reads and writes English.

However, I don't need just *any* kind of Internet, and that is precisely what we have now, any kind with little to do with the vast majority of people of the world. The same as for television, quantity seems to reign over quality.

It is becoming increasingly crucial to define communication projects for development and social change and to prevent the reigning confusion with commercial ventures. The five non-negotiable conditions discussed here may facilitate the task.

> > > – < < <

Alfonso Gumucio is a writer and development communication specialist with experience in Africa, Asia, Latin America and the Caribbean. He is the author of *Making Waves: Stories of Participatory Communication for Social Change.* <www.comminit.com/making-waves.html> and <www.geocities.com/agumucio/>

---

[28] Steve Cisler: "II Global Congress of Citizen Networks, Buenos Aires, Argentina." December 2001 at home.inreach.com/cisler/ba.htm