

PARSING THE DREAM:  
CONSIDERING ICT AS A COMPO-  
NENT OF DEVELOPMENTAL POLI-  
CIES IN THE GLOBAL SOUTH



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# PARSING THE DREAM:

## *considering ICT as a component of developmental policies in the Global South*

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*The promise of a better life through ICTs is still in the air, even though many projects have come and gone and their well-documented failures appear as a testimony of an understudied conflict: exactly how to think about technology in developing nations? Besides all the common techniques, including community informatics as a locally-based, community-center approach, there are some tensions still to be dealt with. It is critical to remember that one of the key aspects of poverty is poverty of information: due to the lack of information and awareness of trends, many local entrepreneurs are not able to engage the world economy or even their national economies successfully, and many local social and cultural activists lack awareness not only of the potential of technology to help them, but of international trends that may affect them heavily, altering their own possibilities and facilitating the operation of international actors. Many development projects tend to set the agenda for them; and the agenda is not necessarily provided by the local experts, but by the interests and priorities of funding agencies and charities. The purpose of any development initiative should be to provide tools and skills to identify trends and opportunities, but also to provide tools and skills for local partners to build the information and management tools needed to identify and “tame” the global trends. Only this two-tiered approach will work. This paper will explore these ideas and connect them to the enormous potential of ICTs for development, based from Peruvian experiences and literature, as well as analytical works about development and technology.*

**Keywords:** Latin America, Development informatics, Media policy, Development policy.

## BETTER LIVES THROUGH ICT

During the past decade, the countries of the Global South (formerly known as the Third World) have faced a promise and a challenge: a changing world economy demands new approaches to development, the goal to turn each and every country into a more equal, fairer and wealthier society. Based on the transformation of the world’s economy into a world economy, thanks to the increasing role that information and communication technology (ICT) plays, old ways of managing one’s nation economy and of educating its citizens have to be transformed.

The specifics of the transformation have not been fixed in stone, but it may come about the following lines: a welcoming environment for investment, with emphasis in international sources; free flow of money, resources and trade, although not necessarily of people; and a clear commitment to conversion of a nation’s economy into a more technical, value-added one, through the deployment of ICT infrastructure, equipment and services at all levels and for all purposes (Stiglitz 2002, Castells 2000). There is no doubt that the nonexistence of a significant, up to date ICT ecology will be a hindrance to any kind of development plans. But the exact terms in which such an ecology will actually bring development is still a black art.

Among the many problems arising from the practice of this black art, finding the right ingredients and mixing them up right is high up in the list. There are many examples of the relative impact of even right decisions that combine all the ingredients into a powerful mix, from the success of India creating a local software industry while having a less than significant impact on poverty alleviation as a whole; to the debatable impact on a nation's economy of a supposedly transformative factory, like Intel's plant in Costa Rica. A potential conclusion is that the relationship between technological clusters and media ones are demanding study, since there are more issues at stake, including cultural aspects, than just technology (Perrons 2004). Nobody would even dare to doubt of any of those as successes, but it may be said that the success is limited compared to the lofty, original goals of bootstrapping a whole nation, visible in many official documents and declarations, including those of the World Summit on the Information Society.

There are many factors that may have something to do with the success or failure of technological strategies in specific countries; the focus here is the localization of the initiatives, or its absence thereof. To effectively localize technology in a community, region or country demands combining two sets of skills and knowledge that not necessarily are always in connection: the skills and capacities to take control of the technology, from the mere technical standpoint but also from a "know-how" perspective; and the knowledge of the real needs of the markets and communities to be served by the technology being deployed. The local touch, so to speak, is also a combination of things: the locally-minded expert does know the terrain, the needs and the potential, but in many cases lacks the perspective necessary to look beyond the immediate experience and to see what else can be done with the technology.

## INDIVIDUALS FOR DEVELOPMENT

It may almost be axiomatic to state that any developing nation needs to have local experts that are aware of the need to know the local needs, but that are also aware of international trends, potential markets and upcoming technologies. They are the ones that can connect people with ideas, and then with financing and marketing. This is directly related to one of the key aspects of poverty: poverty of information, or the lack of information and awareness of trends, making impossible for many local entrepreneurs to engage the world economy or even their national economies successfully. Many development projects tend to set the agenda for them; and the agenda is not necessarily provided by local experts, but by the interests and priorities of funding agencies and charities. The purpose of any development initiative should be to provide tools and skills to identify trends and opportunities, but also to provide tools and skills for local partners to build the information and management tools needed to identify and "tame" the global trends.

The dependence on international financing for many development initiatives is one of the reasons, since the ability of local experts and stakeholders to set their own agenda is limited by the interests and priorities of those providing the money. This is not as serious

an issue as the role of transnational corporations, that have both an obligation to their stockholders and a bureaucratic decision-making process that is not geared towards subtlety or understanding of long-term national needs. No matter how sincere they may be on their commitment to ethical and social responsible action, TNC are in the business of making money and their priorities clash in many instances with the long-term goals of the host nations.

Government officials are caught in the daily grind and the regular electoral process, especially in countries with weak bureaucracies with little continuity; there are just a few countries in Latin America, as an example, that have a civil service as understood in the developed world, not only in terms of continuity of low- and mid-levels employees, but also at the higher levels of decision-making specialist career officials. Not surprisingly, two of the best examples, Brazil and Chile, are also two of the countries with the best career-record of local policy initiatives and long-term continuity.

The individuals most likely to be able to detach themselves from the limitations imposed by the aforementioned factors are members of academic institutions and local business innovators. Not surprisingly, there aren't many of those in the developing world. For academics, there are not enough opportunities for research, due to lack of financing and of a research support infrastructure; also there is an issue of dedication, since many academic researchers are also lecturers and the burden of teaching can leave very little room for other activities.

Business innovators have a different set of problems: the local environments are not always welcoming, forcing a large number of regulations and complicated, convoluted official business ("trámites" in Spanish), while other countries, especially developed ones, offer better chances to work and higher earning rates; compounded with the increase of insecurity and the growth of violent crime, the entrepreneur faces a very difficult task.

Technology brings their own set of problems. Thanks to the reality of technology's global reach, innovators willing to grow their businesses locally are faced with the challenge of getting to a point of success where the market they've created is large enough to accommodate international operators. This is quite common in tech activities, as the story of many small start-ups becoming cash cows for their initial partners through acquisitions is well-known. But it does not work the same way in developing nations, specially since the innovation is in many cases not based on new products or processes, but on the efficient local implementation of a well-known, already existing product.

It is necessary to promote collaborative environments that allow business skills to combine with social analysis skills, and that are able to integrate the different aspects of the development equation into one. This is particularly critical for ICT-based development, since it depends on a complex and still-changing medium, the Internet, which way too complex, especially in developing nations, to be approached by one set of skills only. Something that takes us to the realities of the Internet.

## THE ELEPHANT AS SEEN BY...

No matter how many times it is said, it's worth saying it again: the Internet is a medium so complex that it cannot be analyzed as a whole. This observation is valid also for the whole ICT environment, since there are too many elements to be considered and too many potential effects to be analyzed. The collection of technologies that are grouped under the label ICT are radically transformative, the Internet even more so (Dreyfuss 2001). The multiple ways this transformation take place are what matter here. Partially, this arises from the information aspect of ICT, since information is a soft concept that can be seen from many different points of view. In particular, the insistence on using information as meaning just digital information diminishes the power of the whole concept, since it abandons the symbolic aspects that are relevant to the life of communities; an aspect of the "almost religious conviction" on the superiority of digital information that Langdon Winner (1986) called mythinformation. And there are signals, the form information takes when traveling on the Internet: plain pulses whose effective delivery forms the basis from where we judge the quality of telecommunication services.

Why is this relevant? Mainly to underscore the different understandings of the players in the debate. For big telecom transnational corporations (TNC), information is a matter of signals; for those trying to create wealth from the Internet and ICT, data and signals; but for many in the media industries and for the majority of those actually using digital information, is the symbolic that matters.

The current intellectual property situation serves as a perfect example of the multivariate, complex nature of the ICT ecology, especially in the developing world. In the Peruvian case, for instance, there is on the one hand over 97% of music consumption is pirated recordings or P2P-based downloads (IIPA 2006); local artists are hurt, more than the international ones, due to the small size of Peru's music market. Going beyond the ethical argument, there is little if any chance to convince any consumer to stop acquiring pirated goods, since the cost of an imported CD has never come below 10 USD and the pirated one sells for roughly 1,5 USD, less than 20 percent of the original price. And even so, Peru's just a tiny drop in the bigger IP debate, while reflecting the main arguments.

For music and media conglomerates, music is data, in the sense that it's the nature of their business and serves only a monetary purpose; it has to be packaged according to the business models of the provider and the consumer has to opt for buying the goods as they are or spend their money elsewhere. For the ICT industries, music is just signals, passing by their networks, and the consequences of such traffic should not be their responsibilities. For consumers, it is not just consumption: music is personal entertainment and collective identity. It is a symbolic good that shapes the lives of everyone involved. And as such, music should be treated differently than the actual material incarnation, the CD and its case.

For consumers all around the world, in thrall of illegal copies of CDs, the freedom that comes with pirated goods is the possibility of realizing the capitalist dream: unhindered, unlimited consumption. At the same time, the music bought from street vendors for a pittance is an exercise of cultural belonging, a social act that allows anyone to become part of the “scene”, to be hip or to be countercultural, to be a la mode or to be retro, et cetera. We become citizens of the world by skipping its rules. Similarly to what happens with mobile phones (Ishii 2006), the existence of the hardware begets the need for software, in this case recorded music; the obvious consequence is to acquire software as quickly and as cheaply as possible, since the software is easy to obtain, even more than the hardware, which physical existence demands some kind of payment, even though the actual vendor may not be the “proper” one. By participating in economic exchanges of this nature, every citizen / consumer is also transforming his or her cultural environment, and thanking technology for being able to do so.

Even accepting in principle the arguments of the music TNCs, no one trying to understand the effects of technology in the developing world should ignore the actual cultural and social consequences of the almost-free availability of music everywhere in the planet. The consequences are relevant not just for sociological reasons, but also for business purposes, because if anyone tries to develop a business model that will work in piracy-saturated countries, the legal, technical and economical aspects are not sufficient to explain the situation as a whole. The understanding of the problem demands a fuller, rounder look, including the social aspects briefly described here.

Understood as part of a denser, more complex media ecology, the Internet takes shape in every country in a slightly different way, with small differences attributable to many factors acting simultaneously. It is thus necessary to bring the different aspects of analytical thinking together to understand and promote efficient use and productive outcomes when using ICT.

## DEVELOPMENT IN COMMUNITIES

The complex ecology of the Internet-based media serves as a reminder of another issue: the different notions of modernity. Connectivity has brought the opportunity to see the world in many different ways, but it may be stated that world views, as opposed to just windows to the world, are not easy to change no matter how much information is pushed towards those windows.

The particular nature of Peruvian connection to the Internet, through what is called *cabinas públicas*, the name commercial telecenters are given in Peru, presents an interesting case (Colona 2002, Villanueva 2005). The most important being the social shaping of the Internet through the social practices of consumers throughout the years; the practical outcome is turning the *cabinas* into transient, result-oriented places where the satisfaction of very specific needs are the main reason to use the Internet, and the transfer of

these result-oriented practices to the general use of the Internet by a large number of Peruvian users.

The Internet is indeed interpreted as an open space, free for all to use. The nature of this “openness” is not necessarily the same as the FLOSS / A2K community may have in mind: not a question of an ethical demand for information to be freed, but a reality of information waiting to be grabbed, to be used in any way the user may want to (Villanueva 2006). Following this argumentation, the re-imagining of open access as an “open season” means that widespread opportunities to connect does not mean widespread creativity or systematic scholarly utilization, but just the transposition of social practices, pre-existent in many cases, to an exacerbated web of transgressions, to an environment where the opportunities to reach more information, consume more cultural objects, and communicate with more people, do not mean better use of information, better cultural consumption, or better communication.

Seen from this perspective, the Internet and the new media brought by it are a disruptive continuity. It is disruptive because it alters the balance between providers and consumers in the markets, as well as a teachers and students in schools, or individuals and social and legal rules; but it is a continuity because it is shaped by the preexistent social practices into a medium to enhance and further already existing social trends.

Among the most important social trends of relevance here is the disruption of community in favor of individuality. Although it is a moving target, and especially in the developing world something in deep transformation due to the wide influence of capitalism and globalization, communities in developing nations are under duress thanks to the collapse of many of the certainties that came with the coming of the Nation-State era; in the process, significant transformations in cultural consumption are quite common, in the rural communities as well as with internal migrant (Huber 2002). Rapid urbanization processes have brought a lot of conflicts into urban areas that, although having shreds of modernity in the form of infrastructure and services, are not able to cope with the increasing number of under-educated, under-fed and under-represented poor. In this process, the sense of community that may have existed has mostly not survived the stresses and disappeared, without a clear replacement at hand. In different ways, with different hues and pitches, the same may be said of most of the Global South.

Then again, there are examples of the contrary: cases in which the clear commitment of a community towards both the continued existence of the social bonds among the individuals is combined with a drive towards modernization, economic and social, that provides for new opportunities and increased, socially-spread wealth. In Perú, the well-researched example of Huayopampa sits next to the just emerging Unicachi: in the first case, the community has re-created the social bonds in their original place of living in the Andes, near to Lima, while transforming their relationship with the rest of the country, acting as a supplier of produce to Lima, pursuing productive efficiencies and market rela-

tionships in the best capitalistic tradition (Alber 1999). In the second case, the Aymara community of Unicachi has re-generated their social solidarity in Lima, following a long tradition of trade common in their region of origin, and giving back to the community both in the original place but also in Lima<sup>1</sup>.

It is not that these are communities in perfect shape: in Huayopampa's case, there are a lot of conflicts between those willing to stay at the community itself and those willing to leave for better opportunities in the cities; in Unicachi's case, the wealth returns to the ancestral community as charity rather than development, keeping the existence of a community but driving away the people towards the opportunities of the capital city.

In any case, these two cases serve as an indication of a way to face development from a better, farther reaching approach: Community-based, social attempts are more successful than those based on individual actions, assuming of course societies in flux, with significant differences and inequalities that are based, at least partly, in cultural and social conditions with economics following the former. This is quite different to the situation in Africa, where elites are in many case identity-based, or in south East Asia, with very homogenous societies.

## THE MEDIUM AND THE MESSAGE

The solidarities upon which societies are built were conceptualized by Emile Durkheim (1967) under two sets of characteristics. While the mechanical one is typical of homogenous, less developed societies with a clear historical background, the organic one is the result of a more complex style of living, based on common purposes created by division of labor and trust in the roles played by others, even if there is no shared living experience. The breakdown of mechanical solidarity is a cost to be paid for the economic development of a society; the need to found society on new, organic solidarity, is thus critical. In an organic-solidarity society, social cohesion comes from the individuals accepting that the community they live in is made of a variety of people that cannot live ignoring each other, even when they are different; work is certainly critical, since the acceptance and respect of the roles played by your fellow citizens are the first step towards participating fully in cultural exchanges that incorporate even what you don't actually have brought with.

This is an important issue cause there are many cases of developing countries where the basis of organic solidarity is non-existing or at least, quite thin. Development itself, or at least the attempt to reach a developed situation, is partly to blame. Recent history shows that efforts to modernize developing economies often face serious pressures from within. While there are economic players intent on not losing their advantages, there are societal actors that dislike or even despise development, seen as a way to destroy traditional

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<sup>1</sup> There is little academic research about Unicachi so far, with most of the information available coming from media and personal reports.

communities and their way of life. Certainly, in many cases the desire for cultural immobility is just a façade for power struggles, or protection of existing privileges, but there is no denying that cultural demands are valid and sometimes neglected in the search for modernization. It is another aspect of the just mentioned breakdown of mechanical solidarity, and one of the consequences of lack of development as a whole: no organic solidarity has filled the void.

The pressures are growing, basically due to the influence of new media outlets, created thanks to the widespread diffusion of the Internet. While the extreme route of blocking or censoring altogether is taken just by a few countries (RSF 2005), it does not deny that many others will like to see less of the “trash” coming from outside. This may be the case of a sincere fear of the “others”, or just a sort of cultural solipsism that fails to acknowledge entirely the existence of the others.

Combined with this situation, there are also the pressures coming from old, traditional mass media. It is increasingly difficult to sustain a local / national media scene, consisting in locally-based production as well as broadcasting / publishing, under the constant advances of international media conglomerates. Thus, following Price (2002), the preservation of space, as the area of influence of a culture or society, suffers while the place, the geographical dimension of a nation-state, continues to function under a guise of normalcy, even if its authority vanishes slowly but steadily. What is the purpose of a national policy or regulation for media and publishing, if it only brings better access to media TNC?

The creation of content, with the intention of cultural affirmation, is a perfect role for mass media. One of the goals that may be achieved by locally-created content is the enhancement of social cohesion, through the exhibition of a common cultural experience, common problems and potentially, common solutions. At the same time, representation of the others, those traditionally excluded from the “official” culture of a state, is a role in which mass media is currently quite relevant: as it has been seen with sexual minorities in the USA or ethnic ones in Britain, their existence is recognized and validated as normal, in whatever sense is usually understood in the local media. Even indirectly, this brings a greater sense of unity and common purpose than what the absence of these issues would have brought. That’s not to say that every single problem of economic and social integration will be solved through a more representative media; but it’s a good start.

This aspect is of particular importance in regions like Latin America, where the existence of a “Latino” cultural sphere, in many different incarnations during the 20th century and with various centers of dissemination like Mexico, Cuba (pre- Fidel Castro), Argentina and Venezuela (Fuenzalida 2000), is now facing serious competition from the self-styled “capital city of Latin America”, Miami and its old-style television and music industries. It is difficult, and it is getting more difficult with time, to allow for self-expression when the

pressures from new media, mass media and its new dominant forces from cable and satellite TV, and the global mass cultural industry, are forcing the opening of markets and the consolidation of local media companies as the only opportunity to compete with international players.

From this perspective, it is critical not to abandon media in the ICT4D equation. Again, it serves the cultural representation purpose, but also focuses our collective attention in the long-term issues, like the need for facing and maybe changing stereotypes of what is normal or what is wrong. Social justice demands in the long term an exploration of long-term activities towards a more cohesive society, and media have to be considered in the mix.

## THAT THING WITH FEATHERS...

Ultimately, the search for routes to development is a moving target. It is not only the specific outcomes, measured in indexes and complex graphs, but the general end result: a feeling of well being, shared by most if not all of the members of a community; a path to a better future not only in money or things, but also without fears, without the terrible dictatorship of the day-to-day misery. Hope and justice, or hope for justice.

Hope that everyone may find a way to a better future, through work and toil; justice, as in a fairer, more democratic set of opportunities and services for all. All the efforts to be rewarded, and not one member looting from the effort of the rest.

It is difficult enough to achieve the simple money-based, index-measurable development; so it will be even difficult to reach a point where development of hope and justice are equal to the indexes, even the more interesting ones like the HDI or the Gini index. Mostly because it is not possible to measure hope or to market-exchange justice. But also because they are long-term, long-reaching goals.

To achieve social justice in the realm of economic and social development, under whichever definition is considered, is a task for the ages. Anything that ICT strategies may do will be just a part of it, a component of a quite larger and more complex equation that has to be deciphered by the communities and nations involved, not by a well-meaning but ultimately foreign group of experts. It is a political goal, or at least it should be, more than just a rhetorical device drawn from empty vessels. This one aspect is not necessarily resolved just yet in many countries of the Global South, not only lacking a single, shared view of a better future (their own American dream, if you like), but even the desire for such a better future together: an entrenched elite would prefer to continue leeching on their compatriots instead of suffering in the short term.

That is why the guiding light for any attempt to achieve social justice, even in the narrowest sense possible, is the development of the people, and of society through them. Not just the economical development, but the social and cultural one, too. Social justice

and development come together only as long as the two free the people of the ignorance that enslave them to their economical dependence.

As Amartya Sen (2002) has said, it is ultimately a matter of agency development. Bad education, bad health services, sanitation and food, are at the source of the lack of market competence because poverty becomes a trap; the richer require the poorer to stay ignorant to keep exploiting them. To tackle poverty means to bring to the poor the resources needed to break the poverty cycle.

That's why any ICT4D requires a capacity building component. But since the use of ICT demands education, those whose capacities are to be built are already beyond the first levels of education and training. They are already a small elite, since most of the people in poor country are not ready to be trained effectively in ICT use and production, because they lack the foundations to build on. ICT4D work is geared towards those in the relative top of the ladder, notwithstanding that others may be invited to climb the ladder later.

The task for those already climbing the ladder is to understand the complexities of technology in the specific context of their communities, while looking to the world at large at the same time. Short-term approaches are useful to start with, but there is a significant demand for the second level approach, one that will allow people to collaborate and improve the living and working conditions of their compatriots through research and development.

In 1971, Peruvian anthropologist Fernando Fuenzalida characterized the Andean region of Peru as an arborescent structure where information flows only are assured to go upwards, but not downwards, from each of the branch levels. While poor themselves, those at middle levels in the tree enjoy their living conditions thanks in part by not sharing information downwards. Nowadays, these flows have not necessarily changed direction, but have been complemented with other flows, that disrupt information patterns without, by themselves, changing the economic consequences of the pattern of yore.

If the metaphor is changed from a tree to a pyramid, the issue of informational flows still remains. The bottom of the pyramid, that region popularized by Prahalad, represents the bottom of the information channels, and it is not only the bottom: it is bottomless. Unless there is a way to allow the information flows to reverse, those at the bottom will not be able to rise. They may be able to consume micro doses or silly video in YouTube through cabinas públicas, but not produce wealth to get out of the bottom.

In the specific realm of ICT4D, it is thus urgent to devise strategies for moving beyond signals and data, to promote the symbolic and the information needed to create conditions to create wealth. A two-tiered approach is needed, since the mere facilitation of information appliances does not change the nature of information consumption. This new approach must consider both the external perspective, of development as a national project in a globalised world, with the specifics of community demands, where development

is not only the opportunity of increasing wealth but an effective and quick change of living conditions, for the better. to achieve this, it is indispensable to start by creating a two-tiered mindset about development, that considers as simultaneously relevant both parts of the development equation. The inevitable second step is to prepare the human capacities required, with an eye on individual inclusion in the global economy and another in the local demands for training and education, that may bring new opportunities.

Seen from this perspective, the design of development policies is a complicated exercise with a heavy local component. The local may be complemented by media policies that enhance solidarities and allow for a better comprehension of the global conditions that specific societies and communities have to engage. The need for this engagement is quite significant, since globalised economic trends have shown their strength in levelling fragmented local resistance; thus, it is critical that communities are ready, intellectually as well as productively, to face the new economy and not losing in the process.

The change only comes when the flow of information allows for the individuals to identify priorities and opportunities that normally are beyond their scope. This can only be achieved through a mix of policies that combine the ITC component with “old” media strategies, incorporating both the productive usage, the community-centered cultural concerns, and the demands for participation in the global exchange of goods. Technology as a vessel for change, we may call it.

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