Leave page blank without running head and folio

Public policy and the Internet

Leave page blank without running head and folio

Towards a model of franchises for community telecentres in Latin America

Scott S. Robinson

Introduction

The short-term outlook for the growth and consolidation of community telecentres in Latin America is not very promising. These institutions, still weak and struggling with inadequate business plans and relatively closed information and communication technology (ICT) product markets, offer the public a variety of digital services, training and local content development, at modest costs. They are widely thought to be useful catalysts for social development. The factors working against their survival are many, and the organizations and individuals committed to this kind of "orgware" must analyze the various related components: first of all, the context of digital services markets, the profile of public policies, and the emerging culture of cyber cafés in the region; secondly, the heterogeneous modus operandi of existing telecentres as well as the risks facing them in the current environment and down the road, the respective institutional configurations in support of initiatives for spanning the digital divide, and a profile of key players in the private sector, government, multilateral institutions and civil society; third, the need for viable business plans using present-day or future technological options in addition to appropriate incentives for the users of today and tomorrow. The purpose of this essay is to review this landscape and to contribute to the debate swirling around the Internet (why? for whom?), as well as to suggest a hybrid model for franchising community telecentres in the region.

Background

It is a fact that the misnamed digital divide is widening in Latin America today. That so-called divide has nothing to do with "digital" per se, but refers instead to the growing socioeconomic polarization that is taking us back to the status of a postcolonial dual economy, with a few rich people who are connected to the Web and many more, the poor, who are not (in Latin America today, the ratio may be 96:4).[1] This landscape varies depending on the transparency and the degree of openness in the telecommunications sector

and the corresponding level of prevailing competition. There is no doubt that regional elites constitute the first generation of Internet users and that they are making increasing and effective use of it as a tool for work and communication. These dominant sectors are already well plugged into the Internet and are increasingly capable and comfortable in using it in their plans for investment and maintaining their historical control. But the growth of connectivity and its productive and creative use among lower-income groups have turned out to be a much slower process than was predicted during the heady days when the Internet first took hold in the region in the late 1990s, and it is here that we must focus our analysis and our concerns about the future of relevant public policies.

We are currently witnessing the gradual concentration of the global and regional markets for the supply of digital technology and services: trunk carriers are expanding their networks in the region, and new firms are arriving, flush with working capital, such as Telefonica de España and America Online (AOL), while at the same time there have been a series of mergers between domestic and foreign firms and a slowdown in the pace of privatization of public enterprises, compared to the initial stage of the Internet's expansion in Latin America (1995–2000). This is happening at a time when the US economy is slowing, with a concomitant and dramatic deceleration in the telecommunications or "dot-com" industry worldwide, together with a sharp fall in the value of their shares on the New York NASDAQ market.[2] The result has been recurrent employment cutbacks and the failure of digital start-ups, as well as a distrust of investing in new digital business ventures. And yet, paradoxically, the number of digital service users in the region is growing strongly.[3] But how can this pace be maintained, given the profile of the new urban user in Latin America and the setting of expensive credit and reduced purchasing power in the market for Internet-based services? We may expect that the recently observed growth in the region will shortly come to a halt, as existing urban, middle-class markets are saturated, and that it will be impossible to expand the user base among low-income and rural groups, given current costs. These are the facts of life in the new regional market, which is dominated by transnational corporations with their greater financial capacity, their control of leading-edge technologies, their aggressive policy for negotiating concessions in protected markets, and their ability to wait out temporary limits on demand and increases in investment costs. The first arrivals in the regional market, those that established their names among first-generation users, either as hardware, software or service suppliers, are the ones that have the best chance of staying in business at a time of shrinking capacities to pay and consolidation among service providers. And these firms are not local – they are transnationals, or joint ventures with domestic companies. This is not surprising, but it should alert us to the speed at which service providers are concentrating and to the growing privatization of Internet content and delivery.

We are faced, then, with a situation in which planning for the commercial environment is being shaped by strong international and regional forces (i.e. national elites) that have conspired to lay the groundwork for what we may call the future "digital mode of production". In effect, this refers to the legal framework in each country that allows connections to the digital backbone of the Internet, clear rules of the game for businesses that can afford the high entry costs that leading-edge technological development implies in terms of investment in technology and licences, the proportions of domestic and international shareholding interests, interconnection charges, compulsory links to the respective national security apparatus, and even the tax benefits for those who are the first to market. I suggest that there was a process of accommodation among capitalist groups in the middle of the last decade, just when the Internet proved that it was in Latin America to stay (thanks to subsidies for connecting public universities, which turned out in fact to be hidden subsidies for private firms in some countries). Although it has yet to be documented by contemporary historians, this process involved a series of discrete seminars within the private academic institutions (many of them religiously affiliated) that are training the executive class for today and tomorrow, where participants analyzed this new technology and the legal framework that would suit the interest of strategic groups in each country, and then worked out the terms of negotiation with digital technology suppliers and foreign financial partners. With few exceptions, the national elites did very well for themselves, hiring the advice they needed to understand the new playing field at this key point in the transition to the digital mode of production.

Over the last five years, we have witnessed the approval of national telecommunications laws, the creation or strengthening of regulatory bodies for this new services market, the appearance of the first companies supplying these digital products in their domestic markets, the introduction of investments necessary to provide connections for clients who are able to pay (a process that is now nearly complete), and the consequent absorption of the computer and information culture by the elites who run these businesses (and, arguably, the countries themselves). These elites have been preoccupied with revising their strategic business planning and positioning themselves within the new international division of labour. Yet many people recognize that there can be no mass market for these digital services in their countries, where broad segments of the population are cut off from participating in this global process because of their increasing poverty and their geographic isolation. What we have is a revisionist recasting of the current model of development.[4]

One outcome of the current shrinkage in the market for digital services and products – the "dot-com crisis" – is that venture capital has dried up,[5] and at the same time there has been a maturing of the market among the regional elites, whose capacity to pay or finance allowed them to incorporate

digital services into their various commercial and financial interests during the first phase of Internet expansion in Latin America. But bringing connectivity to people in low-income neighbourhoods and rural districts does not offer the same rate of return. In other words, private initiative, which is always seeking to expand its markets, looks with a jaundiced eye on the market potential of mass connectivity. That segment of the population simply does not have a respectable degree of purchasing power, whereas healthy profits can be had in better-off urban areas. And that segment's purchasing power is unlikely to improve when the regulatory environment promotes the privatization of ICTs, when the public sector is withdrawing from unprofitable investments that increase public borrowing or fiscal deficits, and when the income of broad sectors of the population is shrinking with the cyclical crisis in regional capitalism. We may expect that constraints on the growth of the consumer market for digital services will lead to greater concentration of companies, which will be controlled by megacorporations in the new digital environment. In this scenario, these companies may well reduce the cost of equipment and connection for mass markets, mostly urban, national or regional, because they can amortize their investments over a huge market of users and clients. Moreover, the historic inability of regional economies to provide dignified employment for available manpower has led the best and brightest people to emigrate, and their remittances serve to augment purchasing power back home.

The regional pattern of migration, which used to flow from rural areas to urban centres, is now assuming the proportions of an international diaspora (of which Mexico,[6] Ecuador, El Salvador and Guatemala are outstanding examples), with the result that some economies now live from remittances while marginal regions suffer a continued brain drain. In addition to Central American countries (with the exception of Costa Rica, which receives immigrants from Nicaragua), Ecuador has exported three million of its citizens over the past four years ,while broad regions of Colombia and Peru are sending people to the United States and Europe (Spain, in particular). There is a similar pattern of migration within the countries of MERCOSUR (Mercado Comun del Cono Sur – Southern Cone Common Market), where the major poles of industrial and urban development such as Sao Paulo and to a lesser extent Buenos Aires are reproducing the same pattern of migration and remittances. This trend has reshaped rural areas throughout Latin America, and few regions have escaped the process – it has an impact within rural villages and the "smaller provincial towns" (as city dwellers disdainfully refer to them). There are four striking aspects to this phenomenon:

1. Human capital in the form of enterprising individuals is increasingly scarce, which makes it difficult to strengthen the reduced social capital remaining in these communities.
2. Young women have taken advantage of the new educational possibilities that became available during the last generation and are

assuming positions of local responsibility, something that was previously unheard of and that to some extent reflects the fact that their brothers and male cousins have left, and this is transforming inter-gender power relationships in these traditional settings.

3. The flow of immigrant remittances involves very high transaction costs but also offers an opportunity to create a network of telecentres and microcredit institutions serving migrants.
4. There is a glaring lack of attention to this process, an indicator that the still-prevailing model of industrial development is being regionalized, but that national states are failing to take advantage of digital economies of scale through appropriate public policies. Proposals to this effect, however, are already emerging from civil society and universities.[7]

As we might expect, cultural changes are occurring within these traditional social environments, in rural communities isolated by rugged topography, in the shantytowns "behind the cathedral", in our city centres, and in the vast suburban peripheries of our regional megacities. In the first place, we find a better balance between men and women in the teaching body, after at least two generations of effort, within the stagnant bureaucracy of public primary education. These people are committed to their communities, but they are stymied by the lack of personal opportunity, the corruption and negligence prevalent in the working hierarchy, and the fear of taking initiatives that could jeopardize their retirement benefits. We also have a weak network of health centres run by nurses and doctors whose efforts to maintain a semblance of public health are truly heroic in settings where the budget for the basic care package is spent on administration and not on providing medicines and services to those who need them. It is common to find a new computer on the desk of the regional health officer, but without connection to the Internet or any information network designed to meet his or her needs. Nurses have no access to the information they need for dealing with new phenomena such as the AIDS that returning migrants spread among their spouses. Middle-level municipal managers have no access to legal information pertaining to their functions or to any digital maps that, with the proper training, could be used for managing natural resources and property registers in ways that might accelerate the collection of needed local tax revenues. And all of this is happening in a local setting where the age-old feeling of community, as found in voluntary work, threshing bees, *mingas* and *tequios*,[8] is in daily retreat before the onslaught of secularization and the fragmentation of the primordial community space.

Another phenomenon, of even greater concern for the future social outlook, is a palpable reduction in philanthropic funding for the experimental projects that community telecentres still represent. As the big conglomerates see their earnings decline and even turn to losses, they cut back on their philanthropic contributions (e.g. Hewlett-Packard's World e-Inclusion

programme[9]). In short, profits are lower and so there is less money available for philanthropic projects, the portfolio value of international foundations is declining, and there is hesitancy in allocating the funds available in some developed countries' Social Trust Funds for development projects such as the G8's Digital Opportunity Task Force (DOT Force) project.[10] This discouraging picture, together with doubts about the future sustainability of telecentres, the only generic model for providing information services to digitally deprived towns and neighbourhoods, suggests a likely contraction in future support for community projects that have failed to demonstrate their capacity to prepare and prove a business model that is sustainable over the medium term. Moreover, these international bodies are not playing square – on one hand, they profess to share a commitment to sustainable development (which is still a theoretical postulate, but one that will surely involve intensive information consumption needed for controlling the many variables), but at the same time they show little stomach for putting pressure on national governments ("we cannot violate national sovereignty") whose policies, or at least their uses and customs, in practice contradict or stifle the success of projects "supported" with international public funding. These bodies have lost their credibility with the non-governmental organization (NGO) community, which is becoming increasingly numerous, active and, I wager, angry.

Nor is the role of multilateral financial institutions much cause for enthusiasm. The World Bank has a window (with limited resources, cumbersome procedures and discretionary decision-making) for financing innovative digital projects (InfoDev). However, despite intensive internal debate over the future of the institution with the arrival of the information society, and the launching of a few promising projects (Barrio Net and WorldLink, for example), the strategic weight seems to have shifted to the controversial Development Gateway,[11] a project that consists of a megaportal to the Internet to "solve development problems by sharing high-quality information from local and national sources, tailored to users' needs by topic and community"[12] for a set of countries and NGOs. One of the many criticisms levelled against this expensive endeavour focuses on the diversion of funding into a databank that simply duplicates the efforts of various other organizations, including commercial sites, in this way restricting the opportunities for community telecentre promoters, among others.[13] Many of us who have voiced criticism of the Gateway project consider it a betrayal of the cause of universal access to training. This issue of the World Bank's announced priority digital focus is far from trivial and would seem to be consistent with the profile of the new digital mode of production noted above. Aware of the rising opportunity cost to the Bank of letting NGOs share in the resources it can mobilize, its managers have decided to channel these funds to their own Gateway, rather than dealing with problems of connectivity and relevant content creation. This reduces opportunities and funding for NGOs themselves and shrinks the field on which they can play and negotiate with other players. It would seem that the Bank is paying little heed to the

criticisms that emerged during the public consultations. There is a special audacity behind the World Bank's Development Gateway, in using the Internet to concentrate information, with a supposed value added, and the result will probably be more useful to the public and private sectors than to the social sector, which has fewer analytical tools and skills at its disposal.

Then there is the Inter-American Development Bank (IDB), which has a larger presence in the region but to date no clear policy for the use of new digital technologies. The rest of the family of official international agencies have made no convincing effort to seize the opportunities offered by these new technologies, or they have limited themselves to managing small-scale pilot projects of little relevance to regional needs (UNESCO, FAO, ITU, etc.).[14] The upshot is that these relatively insignificant projects reduce the possibilities for different kinds of projects, by "occupying" the institutional space and because of the uncontested legitimacy that United Nations agencies enjoy. There is a kind of institutional territoriality that leaves no room for the good intentions of competing proposals for the use of ICTs in the regional context. The activities of these regional financial institutions have monopolized the menu of options for local government officials, blinkering their perspective and making them unwilling to consider alternative proposals based on unconventional alliances. Such a setting is unlikely to produce innovative projects – rather, what we have is a situation where institutional inability to yield hegemony is still the norm.

Public universities share this view of the new digital mode of production, where the reluctance of government and market forces coexists with a veritable Tower of Babel of papers and prophecies about "development for the information society", distance education, the urgent need for technological training, and reforms in teaching methods, while in fact there are very few workable and concrete initiatives on a national or regional scale. We have a paradoxical situation where public universities were responsible for establishing initial connections to the Internet in many countries, but they have not been able to maintain leadership in applying ICTs to the substantive tasks of higher education or to participate as partners in the development of sound, scalable public policies. The vacuum created by the absence of such projects has left a rich field of endeavour for private universities: the Technology Institute (TEC) of Monterrey, Mexico, for example, has established more than a dozen campuses with sister institutions throughout Latin America (in addition to its 27-campus system inside Mexico), and its Virtual University is the undoubted leader in this new market for online educational services. It is impossible to understand the paralysis of the public universities in this field, unless their leadership is under discreet instructions that it is not cost-effective to compete with TEC and similar private initiatives.[15] The confusion we see today in this area in Mexico, for example, is symptomatic of the duplication of efforts and investments and the lack of creative leadership. It is alarming that the key function of the university in terms of teaching and information should be increasingly a private preserve,

where earning a degree comes at a cost that most people cannot afford. This undoubtedly means that participation in the knowledge society of today and tomorrow will be a function of the capacity to pay, which will restrict the potential student body even further in the near future.

It is in the regulatory framework that we see most clearly how beholden the state is to its elites and how those elites have dominated policies for the development and supply of ICTs in each country. Yet we are of course in what is called the "neoliberal" age, where the play of market supply and demand is given almost divine attributes to decide the distribution of goods, of services and, I fear, of power. Today's politicians make no distinction between economic policy and "political" policies, which they take to be the same thing.[16] Many politicians have gone on to become public business figures, a subtle but key distinction. In downsizing the state, they fail to consider that changes in economic policy require adjustments to political purposes, goals and definitions of the "public good". National governments in Latin America today have gone from being promoters of development to being protectors or guardians of suppliers, their own and others, in established markets, while at the same time they regulate the rules of entry and serve as elegant doormen for new players, with the proper ties, introducing innovative products and technologies. The absence of useful, timely and reliable information and the lack of transparent procedures in regulatory bodies or within the administration where telecommunications policies are designed have become the rule today, rather than the exception, in all countries. We hear polished speeches and read written promises about "universal access" and connectivity,[17] but in the end the political priorities are to recycle the inherited debt, to arbitrate between the interests of influential elites and, as far as possible, to protect national financial and commercial preserves, to which we must now add the new telecommunications sector. In the incipient democracies of our region, politics as such is no longer a struggle between parties that had some claim to be representative, but has degenerated into electoral competitions that are played out with rhetorical and symbolic pyrotechnics on the omnipresent television screen. It is today's new, young voters, raised in front of the television and schooled in second-rate public education systems, who determine the outcome of presidential elections (look at the recent votes in Mexico, Peru and Venezuela).[18] Digital demagogy, with its promises of development through connectivity – e-government, in a word – dominates the political refrain in a region still submerged in a profound economic and cultural duality between rich and poor.

While national economies flounder and elites shore up their positions regionally, together with their financial and commercial partners,[19] and while the new class of politicians, apologists for the sacred market, fiddles with austerity plans, "redimensioning the state" while privatizing what remains, and cutting back social programmes, technology is advancing at an inexorable pace. Two-way satellite access to the Internet is a reality today, but it is still not available in wide parts of Latin America because of obstacles in the

national regulatory framework and the impoverished rural population's inability to pay.[20] It is clear that this new escalation of connectivity poses a threat to domestic suppliers who enjoy conditions of oligopoly in their respective markets. A microregion can now be "wired" from geographically centralized access points using high-speed fixed wireless modems or microwave units connected to a small-scale satellite antenna located in the middle of the region. In Mexico, these technological options have become available much faster than official authorization and the capacity to supervise the new services offered by distributors who, if not pirates, are operating in the legal grey area as far as these leading-edge technologies are concerned. We can realistically imagine a regional situation where the purchase and installation of these new connectivity instruments runs ahead of "market supervisors", thereby producing even more chaos in terms of frequency saturation and the flood of cheap, low-quality equipment, where every small-time drug trafficker can set up as an Internet service provider with satellite access and sell connectivity to his neighbours. With national policies failing to keep pace with technological change and with the growing demand for access, fortified by the new breed of television advertising that refers constantly to the Internet, we also see the proliferation of cyber cafés, licensed or not, taking advantage of various options for connectivity. This is a process that can be found all over the region today.

The "cybercafeinization" of Latin America is today in full swing.[21] This phenomenon has many ambiguous if not disturbing implications from the viewpoint of community telecentres. In the first place, it reflects a demand induced by television and fashion as well as the pragmatic risk-taking of small entrepreneurs.[22] At the same time, it reflects the lack of policies on the part of governments that have, irresponsibly, I feel, left it to the market to provide universal Internet access. As long as demand is growing, the digital products and services industry is very happy with this strategy, but the industry too may have some doubts about the vagueness of public policies. The current hands-off approach favours them to a certain extent because public demand for access to digital services can be readily satisfied with a finite number of cyber cafés (which are approaching the saturation point in many towns and cities). Next, we can expect to see (in perhaps two years) a saturation of the demand for equipment, peripherals and services, and yet they will not have reached the mass consuming public because of the still-high cost of computers and connectivity. What is worrying about this picture, already visible in the region, is the consumption model that it represents, slavishly duplicating the strategy of commercial television, which successfully developed a truly mass audience of passive consumers who sit at home watching television at whim, and then go out, if they can, and buy what they see in the ads. As I see it, the danger in the incipient but subversive strength of cyber cafés is that they will reproduce this "light" consumption model among users of the few available online instruments – chat rooms, e-mail, music, pornography sites, favourite performers and a bit of passive shopping[23] – and will ignore the enormous

potential of the available technology. What is subversive is the new *habitus* of the cyber cafés, whose patrons make little use of educational and learning opportunities because they have no culture of, and few incentives for, seeking information and transforming it into knowledge. We must not dismiss the notion, however Machiavellian, that national elites prefer this kind of access and consumption over the option, perhaps apocalyptic, of people who are connected and well informed and insist on their rights and on the public services now denied to them. I would venture to suggest that these elites do not have very solid or deep commitment to truly universal access, and so the second phase of the Internet in Latin America, which is beginning now, could hold some unpleasant surprises.

This is happening at a time when governments in all countries are hesitating, "waiting for the market", or proclaiming and launching pilot projects and announcing "telecentres for everybody".[24] Some countries have got into a kind of race towards "digitalization and connectivity", which promises to divert scarce government resources into megacontracts for hardware and software that are bound to be underused.[25] Do we really need "Internet 2"? Still, it is clear that users who are poor, disenfranchised and still anonymous[26] will not provide the driving force for a sharp expansion in the use of digital technology, nor will they be the targets of training in the use of information, which is essential for collective and individual projects within the rich mosaic of Latin America's cultural diversity. It is true that some youngsters approach the Internet with great enthusiasm, but they are a minority, self-recruiting group from which many are excluded. We must not use as a filter the human curiosity of those who have a few pesos in their pocket and can afford to try out the new cyber café at the corner. The situation requires a commitment and a strategy on the part of government and teachers, which will go well beyond any national development plan. It is government, in partnership with NGOs and digital service providers, that can provide the incentive for expanding the incipient network of community telecentres in line with new coalitions of commercial and institutional interests: in other words, what is lacking is a socially inclusive public policy perspective. But wait a minute! – expanding or extending connectivity may not only mean dampening the class struggle (remember that?) by fostering the illusion that the Internet represents a sure road to prosperity and development, but it can also overcome resistance in the informal economy and in popular culture against integration into the current capitalist model, which is eager to charge higher taxes and to suppress any pockets of resistance to state and corporate hegemony. In this scenario, it is not far-fetched to think that projects for electronic government, for example, may be disguised attempts to rationalize the collection of taxes from those, the majority, who now live beyond the banking system, surviving from day to day with their microbusiness or simply selling in the street.

Why should the creation of community telecentres be a public policy priority? Would it not be cheaper and more efficient to let private cyber cafés

meet the digital service demands of new Internet users? This is a legitimate issue and one that deserves broader debate than it has yet received in Latin America. Essentially, we are talking about our preferred model of development, a normative decision, taking into account the emerging digital mode of production, state and capital alliances, and the still-dominant role of national and regional elites that will continue to protect their interests. As I see it, we stand at a watershed: on one hand, the road sketched out above leads to a continuous widening of the current socioeconomic gulf and will reinforce or take us back to our former colonial condition; on the other hand, a broad network of generic telecentres offers us new possibilities for linking connectivity with social development. We may imagine the following scenario, at a time when the fantasies of science fiction writers of only a generation ago are being fulfilled out there in space: indigenous peoples and peasants, geographically marginalized but socially linked to the proletarian neighbourhoods of major cities and with broad circles of family and friends abroad, living with rudimentary technology, struggling for access to a defective public education that stands in contrast to that offered by private institutions (not to speak of health and nutrition), watching and experiencing from the periphery the algorithm of their growing distancing and isolation from the information and knowledge society. This is the portrait of the new digital marginalization and, as we may suppose, it goes along with the progress of the digital mode of production. In contrast, the other path, that of generic telecentres, addresses the current isolation of low-income groups from the digital resources that connectivity offers, but it implies perhaps some utopian assumptions about the possible demand of the theoretical users, who now frequent cyber cafés while attending public universities and technology institutes (which offer their students Internet access). Moreover, telecentres could help to generate appropriate cultural incentives for those same users (what use is online information to me?) and a transformation of public services that are not now available online (to save people time with minor procedures). Community telecentres offer a series of options and possibilities that have yet to be thoroughly examined. It may be that the initiative has already lost the chance to prove itself, under the onslaught of the strictly commercial cyber café model.

The idea of creating a broad regional network of community telecentres offering generic services and content faces a number of major challenges:

1. The current enthusiasm for the new digital mode of production that favours the few, while leaving out of the loop those who have no connection or those who cannot be trained in time or cannot offer a professional service online
2. The stiff competition from cyber cafés, which implies a kind of official subsidy by omission, given the intensive television and press campaigns to induce the consumption of digital services without the know-how of producing content as well

3. The lack of decisions and binding commitments between the telecommunications regulatory bodies of national governments to require telephone companies to offer discounts and/or local calling to the nearest server instead of charging long-distance rates as they do today, for non-profit initiatives or projects
4. The lack of philanthropic spirit among Latin American telecommunications companies, which are taking advantage of the current boom in urban connectivity but show no sign of recognizing that supporting telecentres would be in their own commercial interest and would improve their corporate image over the medium term, in addition to providing benefits for the people now excluded
5. The growing homogenization of youth culture as a result of advertising, television programming and music broadcasting, reflecting the ideological and commercial interests of the groups in power
6. A series of uses and habits that are holdovers from the colonial era, when paternalism and an individualistic and isolationist local perspective characterized the relationships of power between the lowest levels of public administration and the higher state authorities

This is a new context for national elites and their strategies in the various countries of the region, but they have in common the political influence and advisory clout to adapt readily to the new circumstances of the digital production mode now evolving.

Current models: reality and risks

One of the striking shortcomings within the Latin American community telecentre movement is the lack of sustainable business models adapted to local needs. There are a great variety of forms and approaches among the institutions generically known as telecentres. The range of examples runs from the community technology centre left over from the final days of the Menem regime in Argentina to a computer with Internet access in a telegraph office in Mexico and a modest facility sponsored by an NGO with minimal equipment, such as can be found in many countries, often paying long-distance dial-up charges for its connections.[27] We may even include the cyber cafés or the offer of Internet services in telegraph offices as a kind of telecentre. To confuse things further, all of these manifestations of connectivity are often considered "telecentres" in the growing literature. This great potpourri of telecentres is maintained in different ways: with government subsidies, with help from international philanthropic organizations, or as small and underfunded businesses that are simply ignored in the national telecommunications plans and regulatory framework.[28]

It is important to distinguish real telecentres from what we may call fake telecentres. A true telecentre is a point of access to the Internet, generally

sponsored by an NGO or a local NGO-led alliance, that offers training, creates social awareness of how to use the various kinds of information available over the Internet for dealing with local problems, and has what we might call a "local heart". Looked at in this way, the telecentre is much more than a cyber café, although they both offer something in common, which is connectivity. A telecentre that forgets its social purpose and local roots can become a simple cyber café, but the reverse process is not so easy or frequent because it implies a radical change of vision for a cyber café owner to transform his or her establishment into a telecentre with its associated costs, training component and links to community groups. The telecentre can survive as such only if we consider that it adds real value in the current situation of limited, costly and discriminatory access. If information of a generic kind that relates to government and cultural activities is considered a "public good" that must be in the public domain for the public to use, with the costs of access shared by all social stakeholders, then we can be confident about the future of telecentres as described here, on the basis of pilot experiences in Latin America. In other words, the future of telecentres in Latin America depends to a great extent on the value attached to information and access to information by government agencies, the private sector and civil society. Unless real priority is given to access to information in the public domain, which must include educational resources and encouragement to the teaching profession, support for health workers and tools for modernizing local government administration, there will be no change in this very important area. We may note that pressures to privatize information and access to it are increasingly influential and the willingness of national governments to recognize the public's right to information is weak or non-existent. This is a problem in the realm of political culture.

Revaluing information in this way can occur in the context of local communities and their administrative and political microregions (municipalities, provinces, cantons), where local functions have been usurped by the model of the all-powerful state that has recently initiated (or has been forced by its creditors to undertake) a radical redimensioning: today the state is decentralizing its functions, selling off assets, but without offering any of the strategic information or human resource training that the process requires, and this has merely left lower levels of government dependent on the dictates of the "modern" dominant power, often foreign companies. With the growth of citizen demands for access to information about local government activities, the need for what we may call experimental civic education increases. This involves three processes that must be pursued at the same time: providing incentives to use digital information sources, equipping users to access the new and useful body of information now available online, and raising the capacity to understand data and information available as well as to contribute new data so as to generate a qualitative change in local governance. It should be evident at this point that we are talking about a local government model quite different from that of the centralized state, and about the participation

in this dynamic process of a new generation of youths trained in community telecentres. Experimental civic education refers to this process, which is complicated by the number of public bodies whose activities must be coordinated, the identification and provision of the incentives needed to enlist the support of key local groups (students, teachers, nurses and middle-level municipal managers), and continuous training in the related tools and content, mastery of which is a *non plus ultra* for all concerned.

From the viewpoint of this suggested approach, and given the currently limited willingness of officials, I fear that much of our effort to create and promote community telecentres today will be directed towards creating cyber cafés or cyber centres, and that any social commitment they may initially have will be co-opted or simply suspended once they realize that it is impossible to sell services and create a critical mass of trained and "aware" personnel to sustain and cover the cost of operation and of providing social functions for the public good. Telecentres designed in this way are complicated affairs, with multiple functions responding to different interests within the community.[29] This proposal, the way of looking at the generic telecentres summarized here, implies a number of changes in the outlook of public institutions, at the municipal, state and provincial government levels, as well as in federal bodies. It also implies confronting and reversing the current trend to privatize information that private enterprises (and some sectors of government as well) are in effect promoting. And it also requires a level of maturity, political courage and negotiating capacity within the NGO community to promote the organizational and technical approach indicated by attracting the required investment from different sources. In effect, while these changes are not utopian, they do require an innovative vision and represent political costs and risks if they are to be thoroughly implemented. As well, they constitute the main task and challenge in our efforts within the incipient community of telecentre proponents within the region.

The components of a hybrid model

To survive as such, a telecentre requires a number of elements that exist today or are just appearing within the institutional panorama and the market of technological options. But we need to articulate these elements in a new way: to create a hybrid institutional and commercial model that goes hand-in-hand with the expanding right to information and the experimental civic education referred to earlier, a shared or cooperative ownership regime offering connectivity and relevant content with incentives that are culturally appropriate and consistent with contemporary standards of good governance. All of this with political and editorial independence. Is this just another left-wing utopia?

This hybrid model of a telecentre hinges on a series of commitments by the government to and with the citizens: the right to information, the willingness to budget for sharing the cost of access to the information offered,

both that to be found in the public domain and all other available information (which does not necessarily require greater funding, but rather a reorganization of current administrative functions), tax deductions for private contributions to each project, favourable conditions for the registration of non-profit organizations, including eligibility for tax deductions, greater flexibility and harmonization in the regulatory framework to equalize opportunities in all countries so as to create an atmosphere of trust between government bodies, multilateral institutions, private enterprises and NGOs in the collective sponsorship of the project. But the model will still not be viable if it cannot underscore the legitimacy of public goods and regional scaling while being made available in all countries. We must think in terms of a regional market and the potential demand of various groups of users. And if it is to achieve its full impact, the project will require a franchising system for reproducing the generic model, involving financial, technical and operational partners at the community level, where everyone in Latin America can benefit. The opportunity cost of not taking action today will be very high because the current market-driven model for delivering digital services could well become predominant within a short time, effectively closing off this more experimental route, which is also more costly in terms of human resource training and more difficult in terms of coordinating interests. This is the heart of my proposal.

Before spelling out the details of the franchises, we need to review some other elements of the regional context that were not mentioned earlier:

1. Given the regional importance of the remittances economy, it is important to introduce or strengthen microcredit institutions and to upgrade their administrative and technical capacities, which have so far been ignored or dismissed by commercial banks. They should have a proper legal framework and be empowered to meet demands for reducing the cost of migrants' remittance transfers, domestically and internationally.[30]
2. There is a discrepancy between the connectivity possibilities offered by leading-edge technologies, which are increasingly portable, modular, and easy and cheap to install in countries of the North, compared to the pace of authorization in the South for digital services by the respective regulatory entities and the strictly commercial proposals of national groups, who may indeed be protecting what have been to date captive markets saddled with obsolete technology.[31]
3. There is a lack of access, consultation and involvement of civil society on the part of regulatory bodies, many of which are infected with the simplistic euphoria of slogans such as "connectivity will bring us development and democracy" but have no concrete projects that are feasible for geographically isolated and poor rural communities.[32]

These three conditions will certainly affect the feasibility of our proposal in any country.

The franchising system for telecentres in the region is based on the premise that the government and the private sector, and for that matter all stakeholders, have an interest in raising information to the status of a public good, disseminating it in the digital public domain and training the public to make use of available information on public management and resources. It is a question of training citizens and stakeholders in the digital mode of production, of fostering digital literacy.[33] The second premise is that everyone has an interest in cooperating to bring connectivity to rural regions of their respective countries because the weak purchasing power of rural residents, plus the cost of connectivity and the scarcity of qualified technicians, discriminates against this proposal, and this translates into a growing gap between rural and urban areas that will be even more problematic in the future; we assume that this situation deserves an energetic response by the government. A third premise is that there is local demand for communication, information and microbanking services that the new technologies can meet, given the needs of new users who are joining the computer culture in various ways[34] in a setting where the emigration rate is high and constant. The fourth premise is based on the continuing technological evolution of digital services that are making the Internet ever faster, integrating more services into increasingly compact programming and manufacturing packages, all of which are today complemented by satellite access to the Internet.[35] And the fifth premise starts from the fact that NGOs have sufficient management capacity to sponsor and negotiate the alliances that this proposal entails. I recognize that this assertion is problematic because NGOs throughout the region are chaotic in their organization and fragmented among themselves, often exhibiting little clarity in their objectives – in this they are indeed a faithful reflection of the postmodern social condition. These are the premises and the necessary, but not sufficient, conditions for this community telecentre franchising project to succeed. It involves a level of alliances or relationships between partners that NGOs in the region have never as yet achieved, and it requires a consensus on the generic shape of the telecentres, their local services and integration with the objectives and preferences of groups active in the community. Where such groups do not exist, there will simply be cyber cafés.

How would the franchising system operate? The business model can be very rustic – it involves a series of hardware and software options, connectivity options and (the most difficult aspect) "orgware",[36] all financed through an alliance between the government and private initiative through registered non-profit NGOs, with authorization from the Ministry of Finance or the Treasury that will allow them to receive donations while providing a significant tax deduction to the donors. For example, a state agency could subsidize half of the cost of the components external to the community organization, and businesses would receive a tax deduction for contributing the balance. Connectivity costs would be covered with a "social tariff" (cost + 10 percent could be the standard) or, in the case of dial-up services, the call to the server would be a local call and would be charged on a per-call basis and not as a

function of time online. There is also the option of low-cost computer equipment without the conventional and underused computer add-ons (the Simputer project in India and another one developed by the University of Minas Gerais in Brazil offer some promising options). It is clear that the project will rely heavily on the management capacity of the community organization, a problem that is recognized as the Achilles' heel of each project. Every organization involved in this "franchising alliance" will share a contractual commitment to become self-financing after start-up, in terms of the costs of staffing, connectivity, amortizing equipment and training human resources. As to software, these telecentres will use local area network equipment running on Linux and the applications will be increasingly user-friendly. Staff will be given training in maintenance of the local network and the connection as well as the operation of all equipment. For connectivity, these franchises can use the emerging hemispheric coverage of two-way satellite services now in operation or about to be deployed (e.g. Hughes/Direct PC, Tachyon, New Skies, Gilat, etc.).[37] Alternatively, they can devise a hybrid system for achieving connectivity (dial-up, dedicated lines, two-way satellite access, etc.). Each telecentre becomes a potential provider of digital services within its microregion, using a fixed wireless network. The system must be open to commercial relationships whereby telecentres can offer, for example, not only connection services to microbanks but also digital services to individuals as well as video services to schools and health centres, such as those the emerging broadband technologies now allow. In other words, we are speaking of a package of multiple digital services that will fill gaps in the market and that, although they are of little or no interest to existing businesses, nevertheless constitute a public good.

The "orgware" item is a key feature of each franchise: this is the interface between computer-and-information culture and local cultures, and it also gives participating NGOs their negotiating capacity. It involves an awareness that "forming alliances does not mean auctioning or selling off our assets",[38] and those assets in the local context are the legitimacy and credibility of a local body that can mobilize the social capital of the citizenry. These social networks today include clubs or associations of migrants in various places abroad. As well, "orgware" relates to programmes of work, training, operation, administration and promotion within the community where each project or business is located. The key is to recognize that the vitality of each franchise will be a function of its ability to garner legitimacy and meet the needs of different local user groups. For example, these telecentres may offer a platform and training, in cooperation with universities, for creating geographic information systems available to the public and to municipal and provincial governments; it is important to recognize what this implies in terms of managing public information for the administration and planning of different public services, including scarce natural resources, the modernization of local tax systems, and the implementation of development programmes whether they are of the " top-down" or the "bottom-up" variety. Modernizing the entire property

tax system is perhaps the most valuable function (and the proceeds from increased revenue could pay the cost of the entire system).[39] Another component, also in the "orgware" category, is a system of salary incentives for teachers, nurses and doctors within the education and health systems where, in exchange for taking training in the use of telecentres' tools and content, they receive bonus pay and a certificate that will be of value in the labour market. This notion of skills certification through distance education courses implies a radical overhaul of current systems at the national level: the likely economies of scale here suggest that a regional Latin American certification system would be a good idea, although this has yet to be discussed even at the national level in many countries. Finally, "orgware", in my view, encompasses an understanding of the virtues of, and basic training in, open source software and available applications germane to telecentres.

It is likely that the people responsible for community telecentres will be women, as is the case today in the region. This is a key issue because experimental projects now underway show that young women in rural villages and urban *barrios* are more responsible, disciplined and trainable in technical subjects and content design. We are witnessing a reversal of social roles at the local level, where, on one hand, emigration has led the more enterprising males to leave for the city or abroad and, on the other hand, the women who are left behind are enrolling in secondary education institutions and are actively demanding greater opportunities for learning and employment. This is evident within the telecentres, among their managers, their instructors and their users. To a large extent, the computer and information culture is being spread by a new generation of young women who are competent, curious and increasingly well trained. This fact has significant implications for the future of many public and private institutions in these communities and in low-income urban neighbourhoods throughout the region.

The Internet: why and for whom?

There is a document entitled "The Internet. . . why? and what for? Thoughts on information and communication technologies for development in Latin America and the Caribbean" that provides a social overview of "future challenges", "the Latin American perspective", "beyond connectivity" and "the road ahead".[40] In large part, this essay, and the proposal offered here, is a response to that document. The model described here for community telecentres allows for equitable access, meaningful use and social appropriation of ICT resources. It goes beyond connectivity by offering meaningful use of the many resources available and the mechanisms for their appropriation. The proposal is based on existing social practices, in public libraries, schools, health centres, municipalities and microbanks. They share the potential of a strategic vision of communication in the sense that community organizations can move beyond technological fetishism and can focus on content and on civic education; they support the process of democratization and they respect

cultural pluralism in that, through them, information becomes a public good available within the public domain, where its use acquires a cultural value; and this new shared value is consistent with the development of an attitude of social reciprocity and enthusiasm about the creative possibilities of human beings. The training offered in community telecentres turns them into a *de facto* extension of the current education system, where priority is given to teaching people to discriminate between data, information and knowledge; they are spaces that avoid the risk of trivializing information while attenuating the current hegemony of infotainment. The critique of the contemporary situation and the proposal outlined here also meet the central objectives of transforming social participation in public policies, incorporating a gender dimension by recognizing that management personnel and many key groups of users (female teachers and nurses) constitute the human backbone of local institutions, and at the same time the operation and use of digital resources allows their impact on community telecentre users to be evaluated.

Conclusion

This proposal for creating a franchising network for community telecentres in Latin America is intended as an alternative business plan to that of the commercial megafranchises now being planned or launched in the region.[41] There is no prescribed path by which we can join the digital mode of production because that path is negotiable and will evolve favourably as long as there are projects attuned to local cultural realities and demands. The franchising project is a bold initiative, adapted to community realities, independent of the many services offered to various groups of users. The challenges in integrating the key institutional players are great, as discussed here, and no components should be overlooked because the integration of cultural, legal, technological and operational dimensions is vital. In fact, the process is political, in a word, and the proposal may be criticized as utopian, something that can be achieved in the short run only if Latin American social networks and their potential partners, nationally and internationally, undertake to recognize its value, scale and probable impact, while promoting and negotiating its implementation in that light. There are many vested interests that could block the way, distract efforts or confuse players who are unclear or timid in their objectives.

The cultural dimension of this project implies a challenge that deserves a final word: the current coverage of commercial television in Latin America and the continuous bombardment of broadcast messages targeted at young consumers of music and other paraphernalia have created for the first time a homogenized regional culture. Today, all audiences are consuming the same soap operas and pop musical fare, creating fantasies and fetishes in the midst of a minefield of high interest rates, unfair contracts and unscrupulous businesses. The cyber café syndrome merely reinforces this trend. Although it may seem contradictory, it is possible that intelligent appropriation of the

new digital technology could be a strategy for restraining the regional trend to homogeneity and, at the same time, for constructing local community spaces where players can participate with their own resources and ideas in the emerging digital mode of production. But this will not be easy, nor will it happen tomorrow.

Notes

1. "We see now an ever more extreme separation of a small minority that controls enormous wealth from multitudes that live in poverty at the limit of powerlessness. The geographical and racial lines of oppression and exploitation that were established during the era of colonialism and imperialism have in many respects not declined but instead increased exponentially" (M. Hardt and A. Negri, Empire, Cambridge MA: Harvard University Press, 2000, p.43).
2. News stories suggestive of this profile in the current market include the following: <http://www.techweb.com/wire/finance/story/INV20010510 S0004Gerstner>. Services are tech's new driving force. "Services, along with technological leadership, will be the driving factors in high tech, he said, as opposed to commodity businesses. Companies that do not adapt will be marginalized," he added: "You must innovate or integrate." <http://www. techweb.com/wire/story/reuters-finance/REU20010510S0004>: " A slump in the chip and components markets, sparked by a sudden slowdown in demand late last autumn for personal computers and cell phones, is increasingly expected to bottom out this year, but in the meantime profits will likely remain under pressure." <http://www.totaltele.comview.asp?ArticleID=39851&pub= tt&categoryid=0>, Siemens to overhaul telecoms businesses, by Total Telecom staff, May 10, 2001: "German electronics and engineering group Siemens said Thursday it would cut a further 2,000 jobs from its Information and Communications Network (ICN) business, Reuters reported, bringing the total number of jobs lost at the fixed network unit to 5,500. The company also said it would cut back start-up costs at its US broadband and optical networks units to ensure ICN meets profitability targets set last December. Total cost savings at the ICN unit are expected to reach 800 million euros. The latest job cuts follow 2,600 job losses at Siemens' ICM mobile unit, bringing the group total so far to 8,100." <http://www.totaltele.com/view.asp?ArticleID=39654&Pub= CWI&CategoryID=705>. Business in brief – Tough all over: downsizing across the board,
3. TheStandard.com, May 10, 2001, LatAm's net growth strong despite dot bombs, by Juan Carlos Pérez of IDG: " Jupiter Media Metrix has revised upwards its Internet usage forecast for Latin America. The New York-based market research firm now expects the region to have 77 million individual users by 2005, according to analyst Lucas Graves. Jupiter's forecast a year ago called for the region to have 66.6 million online users by 2005. . . What this means is that the woes that have affected the technology sector in the past year – such as

plummeting stock prices, myriad bankruptcies and massive layoffs – have had little or no impact over Internet adoption in Latin America. . . other barriers that could hamper this projected growth continue to exist, including slow connections, high cost of telecommunications services and access devices, and concern over privacy protection and security of online data. . . Graves highlighted that most of the Latin Americans who will be online in 2006 aren't online today, proof that this is still a nascent and very fast-growing market. His company estimates that 21 million people in the region used the Internet by the end of 2000, equivalent to 4 percent of the region's population, but that is expected to grow to 86 million people by 2006, or 15 percent of the population. By comparison, in the much more mature US market, 66 percent of the population will use the Internet by 2006. . . AOL Latin America announced Tuesday that its subscriber base increased to 647,000 in its first fiscal quarter of 2001, ended March 31. . . a company such as AOL Latin America doesn't have to steal customers from its competitors because the growth in new users is so phenomenal." (In terms of overall Internet usage, in Brazil about 60 percent of users are in Sao Paulo, Rio de Janeiro and Curitiba, while 78 percent of Argentine users are in Buenos Aires.

4. Mosco *Political economy of communication: Rethinking and renewal*, London: Sage. 1996, p. l30. "This revisionist argument maintains that business leads the modernization process and that, while nothing should be neglected, it is more important to establish an advanced telecommunication and computer infrastructure for business than it is to create mass communication systems. The new vision calls for the establishment of state-of-the-art digital communication systems that make it possible for businesses operating in the developing world to participate fully in the international division of labour"(Mosco 1996).
5. Consider this recent headline: Venture capital fund losses signal retrenchment. See <http://www.internetweek.com/story/INW20010411S0010> .
6. Mexican Migration Project, <http://lexis.pop.upenn.edu/mexmig/welcome.html>.
7. Rethinking telecentres: Knowledge demands, marginal markets, microbanks, and remittance flows, <http://www.isoc.org/oti/articles/0401/robinson.html>.
8. Communal work in traditional communities of Central America and the Andes.
9. <http://www.hp.com/e-Inclusion>.
10. Global bridges: Digital opportunities, Draft report of the DOTForce, v.2.0c, <http://www.markle.org/seconddraft.pdf>. Memorandum presented by the French NGO side to the Digital Opportunity Task Force, <http://www.vecam.org/dotforce.htm> .
11. See <http://www.brettonwoodsproject.org/update> and <http://www.voiceoftheturtle.org/gateway> for critical reviews of the evolution of the Development Gateway project <http://www.developmentgateway.org>.
12. Source: Development Gateway's draft business plan, February 13, 2001, <http://www.developmentgateway.org> and <http://www.brettonwoodsproject.org/topic/knowledgebank/k2301_babel.html#ref7>.
13. The <http://www.brettonwoodsproject.org> site contains sharp and cogent criticism of the Development Gateway project. The broad public consultation

on the initial design of the initiative can be seen at <http://www.globalknowledge.org>.

14. It is worth reviewing the programme for a strategic regional event of the IDB where it appears to take a position with respect to telecentres and similar projects. <http://www.tele-centros.org/comunidad/tallerBID.html>.
15. <http://www.ruv.itesm.mx/programas/maestria/mte>.
16. <http://www.emayzine.com/lectures/Lapols-1.htm>.
17. Transcript of the remarks of President Vicente Fox at the unveiling of the "digital government" plan for Puebla, during the Second Ibero-American Meeting of Digital Cities (Puebla, May 2, 2001): "Welcome, friends . . . I am convinced that these technologies are indispensable for us if we are successfully to join the global economy. Today one of the principal competitive advantages of any economy is connectivity. To be wired means knowledge and prosperity and taking the lead, and so our societies' access to communication and information systems will multiply the possibilities for human development and economic growth. . . . We must bring connectivity to our remote regions, to our disadvantaged families, to wherever there is poverty, as we have in Mexico, with 40 million poor people who can benefit greatly from this effort to improve government and connectivity."
18. Latin American democracies must assume that their outcomes will disappoint their citizens: Serrat, La Jornada, Mexico City, May 12, 2001.
19. Note the activity of the Grupo Cisneros in Venezuela, in forging local alliances while AOL expands its coverage.
20. On the battle to control Internet satellite access: "Murdoch Gets Rival in Bid for DirectTV – Satellite TV broadcaster EchoStar is making a play to acquire DirecTV from Hughes Electronics Corporation, a General Motors subsidiary. The move, which complicates the bid for DirecTV made recently by Rupert Murdoch's News Corp, offers a two-phase plan that would immediately give GM a substantial amount of cash for a minority stake in Hughes and later seek regulatory approval for a full merger. General Motors is pressed for cash because of keen competition it faces in its North American and European auto markets" (*Financial Times*, May 25, 2001, <http://news.ft.com/ftgx.cgiftc?pagename=View&c=Collection&cid=IXLC078IH7C>).
21. For an interesting discussion, see the article *Enredo mexicano* by Antulio Sánchez, <http://www.etcetera.com.mx/pag59ne6.asp>.
22. Consider this comment on junk recycling in the United States from David Brooks, The peculiar ruins of the new economy, *New York Times Magazine*, May 13, 2001: "We used up the zeitgeist of the 1990's, and now we're trying to sell it off . . . but it's really the spirit of a decade that's being put on the remainder desk. For Sale: One Previously Owned Cultural Moment/ Now Slightly Embarrassing. It's goodbye to the epoch – which must have lasted all of seven years – in which people chatted excitedly about free-agent nations, distance being dead, IPO's, the long boom and those dot-com ads during the Super Bowl that showed global children united by the wonders of instant communication."

23. Wired more than ever, <http://www.reforma.com/tecnologia/articulo/087737> (Reforma, Mexico City, April 16, 2001): The seventh cultural and media consumption survey shows that Mexican surfers average three and a half hours a day online and that the Internet is used in Mexico more for entertainment than for work or study.
24. See the announcement of 300 new telecentres in Venezuela at <http://www.el-nacional.com/eln08062001/f-pf1s2.htm>.
25. As one astute participant in online community chat groups has put it: "It strikes me that we are in a computer arms race with each nation vying to make it the greater equal amongst equals. And while each unit doesn't cost millions like missiles and tanks, the consumption of capital is large and the rationale the same. If we don't have it, we will be left in the dust or absorbed or we will become road kill on the information/economic superhighway. The electronic equivalent of 'arms merchants' are using the same tactics that sell F-16's, cruise missiles and kevlar vests" (Tom Abeles, May 25, 2001).
26. There was a glaring absence of reference to any strategy for digital services and tools in the campaign platforms of the three major parties for the 2000 presidential elections in Mexico.
27. Telecentres by country (from the registry at <http://www.tele-centros.org>):

Argentina – 1,269	Bolivia – 1
Brazil – 6	Chile – 16
Colombia – 12	Costa Rica – 4
Cuba – 196	Dominican Republic – 2
Ecuador – 8	El Salvador – 2
Guatemala – 3	Haiti – 1
Honduras – 4	Jamaica – 1
Mexico – 13	Nicaragua – 3
Panama – 1	Paraguay – 1
Peru – 20	Spain – 2
Suriname – 1	Venezuela – 5

    Note the contrast with the more than 500 telecentres in South Africa see <http://www.communitysa.org.za>. The report by Francisco Proenza et al. is also a useful reference: <http://www.iadb.org/regions/itdev/telecenters/index.htm>.
28. See the video produced in 2000, "Telecentres in Latin America", available online at <http://www.americascanada.org/politics/connectivity/connactivities/cangovt-e.asp#telecentres>.
29. "Everyone underestimates the complexity of these centres and overestimates the real need the locals have for the centres" (Steve Cisler, personal communication, May 9, 2001).
30. The People's Savings and Credit Act (2001) approved by the Mexican government while this essay was being drafted is an example that meets these requirements.

31. Note that Mexico City has no cable Internet services, although the urban area has an extensive cable television network. The fact that the dominant telephone company, Telmex, bought a significant interest in Cablevision suggests a plot to delay the offer of high-speed digital services, which has 70 percent of the country's Internet users.
32. It is significant that NGOs have been excluded from official "consultations" on telecommunications policy changes, while at the same time NGOs have failed to put forward any viable proposals. This brings us to the complex problem of the alliances between traditional elites, political parties and the bureaucracy in the still-weak democracies of Latin America, where NGOs, as relative newcomers, are excluded from the traditional formulas of negotiation and power-sharing.
33. For an intelligent and relevant discussion, see K. Tyner *Literacy in a digital world: Teaching and learning in the age of information*, Lawrence Erlbaum, 1998.
34. The following table summarizes the ways of introducing new users to the Internet. SMS = short message service, available in Europe and selected Latin American markets today.

MUND AMERICAS Internet users advance

Cyber categories	(A) Brought to Internet by way of. . .	(B) Use mode preferred	(C) Communi-cation mode preferred	(D) Media mode preferred
(1) Cyber active	Video games consoles	Wireless	SMS	Music down-load (Napster)
(2) Cyber literate	School education	PC home	Peer-to-peer (PC/ICQ)	Online radio and television
(3) Cyber attracted	Self taught	PC cyber centre	Chat	Open radio and television
(4) Modern professional	Job training	PC business office	E-mail	WWW text

Categories are flexible and society specific, e.g. a cyber active may be (1A)(1B)(1C)(1D) in the United States, while in Mexico a cyber active may be (1A)(2B)(2C)(1D).

Source: MUND, Mexico, May 2001.

35. "The Nokia Media Terminal device will function as a video game console, an MP3 digital music player, an Internet web browser, a digital TV recorder and a digital TV set-top box" (*Financial Times*, May 14, 2001).
36. This software is available free at <http://www.tele-centros.org>. Also promising is the Simputer ("simple computer") now being made in India, with licences available for assembly elsewhere.
37. <http://www.directpc.com>, <http://www.tachyon.net>, <http://www.newskies.com>, <http://www.intelsat.com>, <http://www.gilat.com>, <http://www.panamsat.com>.
38. L. Stolovich, *Impactos sobre Antel de los cambios proyectados en el sector telecomunicaciones* (The impact on Antel of planned changes in the telecoms sector), Montevideo: Telecommunications Workers' Union (SUTEL/PIT-CNT), 2001.
39. This is a point that is hard to translate into convincing arguments for local authorities who, like those in Mexico, share a political culture where anything of value comes from "above" – funding, initiatives, approvals, information. In a system of this kind, officials' field of vision is vertical and not horizontal. And Mexico may not be an exception.
40. <http://www.acceso.or.cr/PPPP/index_en.shtml>.
41. See Net cafés: An English flavor comes to the US, *Fortune*, June 26, 2000, which profiles a proposed series of cyber cafés for New York City. The model is very exportable.