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The Internet, inequality and exclusion in Peru: the social impact of the *cabinas públicas*

Dissertation presented for the MA in Area Studies (Latin America), Institute of Latin American Studies University of London

August 31, 2001

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"Technology is like education – it enables people to lift themselves out of poverty. Thus technology is a tool for, not a just a reward of, growth and development" (UNDP, 2001:27).

"Social thought has gained little by attempting to generalize about 'cyberspace', 'the Internet', 'virtuality'. It can gain hugely by producing material that will allow us to understand the very different universes of social and technical possibility that have developed around the Internet." (Miller & Slater, 2000:10)

Introduction

Peru has been perhaps the most studied of the Latin American countries with regard to the diffusion of information and communication technologies (ICTs). In the region, it has the most people who use the Internet from public access points (Fernández-Maldonado, 2000a; Proenza *et al.*, 2001:iii), in this case known as *cabinas públicas*. Indeed, the significant growth in Internet access in Peru¹ over the last few years could not have happened without the explosion of the *cabinas*. This has taken on almost mythical connotations both among Peruvians and non-Peruvians, particularly now that the bridging of the 'digital divide'² has attracted the attention of world leaders and become a global objective. The Peruvian model of Internet access has gained international recognition as an example of an alternative solution to the 'digital divide', since it emerged 'spontaneously' (i.e. without the state playing an active role) and has been more successful – in some aspects – than subsidised Internet access centres which struggle to survive (Fernández-Maldonado, 2000a). Most recently, the Peruvian case was referred to as a "worldwide best practice"(Hilbert, 2001:85).

Current estimates suggest that there are over 1000 *cabinas* nationwide (OSIPTEL, 2001)³, and one study⁴ conducted in the year 2000 counted 533 in Lima alone. However, despite the high profile and positive coverage of this phenomenon, and although there has been some form of public access to the Internet from Peru since 1994, by December 2000 only 2.8% of the population had used this technology, compared to 42% in the USA and an average of 24% in the EU countries (PC World, 2001a). In Lima, the figure was slightly higher: 18% of the population of Lima aged between 12 and 70 have used the Internet at least once (Apoyo, 2000:5). 41.45% of households in Lima now have at least one member who uses the Internet, and 70% of these users access the Internet from a *cabina*, where the cost is now up to 70% cheaper than a domestic dial-up connection (INEI, cited in Fernández-Maldonado, 2001).

Rightly or wrongly therefore, the Peruvian case seems to have become one of the compulsory examples to illustrate how this new technology has taken on a life of its own in a particular context. The context itself is vital to our understanding of why and how the Peruvian situation developed as it did, since according to Miller and Slater (2000:1) "the Internet is not a monolithic or placeless 'cyberspace'; rather, it is numerous new technologies, used by diverse

¹ According to OSIPTEL (2001) there were 208,000 users in 1998 and over 800,000 by May 2000.

² The 'digital divide' is the uneven diffusion of ICTs (UNDP, 2001:38).

³ This is the most commonly cited figure; however, it first emerged in an article by Lama (1999), cited both in Proenza *et al* (2001) and Fernández-Maldonado (2000a; 2000b; 2001), so is already two years old.

⁴ Study conducted by APOYO, information supplied by Venturo (2001).

people, in diverse real-world locations... the Internet as a meaningful phenomenon only exists in particular places". Or, as Ricardo Gómez (2000) has written,

The Internet is a hall of mirrors. In its multiple images, its uses reflect the inequalities and injustices of the societies into which it is inserted. Thus, information technologies are not positive or negative in themselves, but neither are they neutral. They take the form and direction of the societies into which they are introduced, and at the same time they help further shape the relations and modes of interaction in these societies.

One recent study (Proenza *et al.*, 2001:75) points out that the conditions which were necessary for the 'success' of the Peruvian model were quite specific, and included

an extensive market of numerous low-income families with a solid educational level, concentrated in a safe area (low incidence of theft) with transportation facilities for whom a computer and Internet connection are too expensive (high individual costs relative to income); professional, trained personnel and a large entrepreneurial informal sector; an open market and strong competition at several levels, particularly among Internet service providers; and a pricing policy that encourages charging for delivery of public services.

The chances of this phenomenon being repeated elsewhere may therefore be slim, particularly since, as mentioned above, it developed without the intervention of policymakers. As the title of this paper suggests, the development of Internet access in this particular society must also be read in the context of deep inequalities and exclusions both old and new; a factor which is often overlooked by the more optimistic accounts. These tend to focus on the people who *have* been able to use the Internet, a minority when all is said and done, rather than on the majority who have not, and the reasons for this. Although Internet use is growing by more than 30% a year in Latin America, this still means that only 12% of individuals will be connected by 2005 (UNDP, 2001:35).

Peru itself remains a country with an extremely high variation of regional income, and almost 80% of the total reduction in poverty which took place in the country between 1994 and 1997 was confined to only two regions: Lima and the urban Sierra (World Bank, 1999:1). There were significant improvements in education, health and infrastructure over the same period, but 70% of this took place in cities (*idem*, 2). Figures for 1996 show that the poorest 20% of Peruvians received only 4.4% of income whereas the top 20% received 51.2% (UNDP, 2001: 183). Figueroa *et al.* (1996:75) describe Peru as "a country with an extensive history of exclusions" but also state that "[t]here are paths, difficult though they may be, which lead to social, cultural and economic mobility, which do not turn exclusion into a permanent state and synchronous stigma". Migration and the wider availability of communication media are factors which are identified as making a contribution to greater inclusion (*idem*, 71). Although illiteracy in Peru continues to fall, the changes in society which mean that mass communications and media now occupy such an central place in everyday life also imply that those who remain illiterate are

now more strongly excluded from both rural and urban settings. The growing importance of the Internet can only serve to exacerbate this process, unless something is done to reverse it.

There are also specific inequalities related to the infrastructure necessary for Internet access, namely the availability of computers and telephones. Obviously, the *cabinas* have shown that a lack of these may be solved collectively rather than individually⁵, but ownership of computers and telephones continue to be the most common indicators in discussions of inequality in access to ICTs. Statistics for Peru show that in 1999, 7% of the total population owned a computer, and 33% owned a telephone. However, when these numbers are broken down into socioeconomic groups (A to E), we find that 82% of group A owned a computer, compared to 26% in group B, 7% in group C, 1% in group D, and no-one in group E. For telephones, the distribution is only slightly more equitable: 96% in group A, 89% in group B, 52% in group C, 14% in group D and 2% in group E (cited in Proenza *et al.*, 2001:13). The importance of such indicators is confirmed by the most recent *Human Development Report*⁶, which states that, "[p]articipation in the network age requires diffusion of many old innovations. Although leapfrogging is sometimes possible, technological advance is a cumulative process, and widespread diffusion of older innovations is necessary for adoption of later innovations"(UNDP, 2001:45).

As suggested by Fernández-Maldonado (2000; 2001a; 2001b), an awareness of the importance of the informal sector in the Peruvian economy will also be important in our understanding of the development of the *cabinas* in Lima. According to the World Bank (1999:vi), the informal sector employs a fairly constant 45% of the country's economically active population in urban areas, though Fernández-Maldonado (2000b) suggests the figure may be up to 60% in Lima. Whilst a full discussion of the debate around the informal sector is beyond the scope of this paper, it is important to point out the dangers of associating this so-called 'sector' only with those entrepreneurs who are able to do well out of it as this overlooks the poverty which affects many of whom work as wage employees. Also, the involvement of the informal entrepreneurs in the *cabina* business was not entirely without precedents, since they had in fact provided some ICT services and products before the emergence of the Internet and the subsequent growth in demand (Fernández-Maldonado, 2001).

This paper will be centrally based around Montealegre's (1998:235) idea that the development of Internet access in a country like Peru is "an evolving process that is both

⁵ In the period 1996-2000, the number of Internet users grew by a factor of 14 but the number of personal computers only increased by a factor of 2.4 (INEI, cited in PC World, 2001a)

⁶ The HDR includes telephones and electricity "because they are needed to use newer technologies and are also pervasive inputs to a multitude of human activities" (UNDP, 2001:46).

cumulative and expansive". Those leading this process tend only to have a general goal of achieving access, so they focus on solving problems as they arise, learning from each experience and gradually becoming aware of a broader set of opportunities and a better defined strategy. This group of actors is also subject to fluctuations in its composition and in the relative importance of the players at each stage of Internet development. In Peru, it was a civil society organisation, the *Red Científica Peruana* (RCP), which set the process in motion, and it did indeed make significant progress in the first half of the 1990s. The baton was then passed to the country's small-scale entrepreneurs (informal or otherwise) who have adapted the model and brought it closer to the reality of the low-income majority, thereby satisfying a "voracious demand for communication and connectivity" (Proenza *et al.*, 2001:7). However, as will be discussed below, the telecommunications giant Telefónica also played an important role.

In discussing the 'social impact' of the *cabinas*, this paper will draw on Díaz-Albertini's definition (1996), developed during an early analysis of the RCP and the Internet in Peru. Significantly, it refers not only to tangible or material changes as a result of using the Internet, but also to people's expectations, perceptions and knowledge. Chapter I will present an overview of the relevant works on development and the Internet, and seek to analyse the cabinas within the context of the debate on telecentres, or public access points. Chapter II will chart the trajectory of the *cabinas* so far, from their inception as tools for development and decentralisation by the RCP, to their appropriation and commercialisation by the country's entrepreneurs. Through fieldwork conducted in Lima in June 2001, the paper aims to give an up to date picture of how the situation in the country is developing, and how it is perceived by those involved in leading this process. Chapter III will therefore present two case studies of *cabinas* serving low-income communities in Lima. Finally, this paper will offer some conclusions, arguing that there are now indications that a new phase is beginning. This is based on an awareness that while a commercial approach can make, and has made, significant inroads into achieving broader access (at least in the urban setting), more direct intervention may be required if the potential of this technology is to be fulfilled in Peru as a whole.

Methodology

Although this paper seeks to make the reader aware of the many traps which exist when writing about experiences with ICTs, it may not manage to avoid falling into some of them itself, particularly the tendency to be anecdotal. The study of the Internet is obviously a new academic discipline; indeed, it is not yet clear that it constitutes a distinct discipline of its own, since researchers on the topic tend to be drawn from a wide variety of different disciplines and write

about the medium in very different theoretical contexts. In terms of an Area Studies approach to the Internet and development in Peru, the specific focus of this paper, there is a real shortage of good material. Much of what is cited here was made available through specialist websites and e-mail lists or personal recommendations from others working in the field. Lima was chosen as the focus of this study, but there is great scope for future studies to be conducted on *cabinas* outside Lima. In terms of Internet access Lima is the best covered and there is a vast difference even to other major cities. Lima has 30% of the country's population and between 65 and 78% of its fixed telephone lines, mobile phones, cable TV and *cabinas* (PC World, 2001b).

Assuming that the majority of *cabinas* in Lima were likely to be commercial, the aim was to look for more 'socially-oriented' examples, in low-income areas, to see why they were set up and by whom, what kind of training they offered, and what the results of this training were felt to be both by the people running the *cabina* and the people using the cabina. The research also aimed to establish whether the presence of so many privately-operated *cabinas* precluded the viability and success of more socially-oriented ventures. Upon arrival in Lima, the answer was instantly clear: it transpired that the RCP no longer operated *cabinas* of its own, and that the few NGOs involved in this field in Peru tended to work in rural rather than in urban areas. The basic explanation for the lack of NGO-run *cabinas* or telecentres in Lima is the proliferation of informal or privately run *cabinas*, which already provide cheap and easy access to some of Lima's low-income population⁷. According to the manager of the only NGO *cabina* in Lima, although interest in setting up a similar project does exist among other NGOs, there are significant obstacles such as the high initial investment required in infrastructure and the problems associated with software licenses (Kerrigan, 2001). The cost of setting up a *cabina* is estimated at between \$10,000 and \$25,000 for a basic establishment (Proenza *et al.*, 2001:16).

The information related to this topic was highly fragmented, and it was necessary to visit many different people and places in order to gain an overall picture of the situation. Interviews were conducted with a number of leading figures in the field, and the author attended a workshop on information flows and systems in low-income urban communities, and a 'historic' meeting held at the RCP which brought together, for the first time, many of those with an interest in Internet for development in Peru. This paper also offers two short case studies of *cabinas* in Lima which are thought to be more 'socially oriented' than the majority, one run by an NGO to complement its other activities with a particular community (the Cono Norte), and one run by an entrepreneur with previous involvement in social and political work in his community (Villa El Salvador). These are by no means 'typical' *cabinas*. However, they are of interest to this

discussion because they are generally though to be 'successful' in social terms. In-depth interviews were carried out with each *cabinero*⁸ and with one user of each *cabina*, who was selected by the *cabinero*. In both cases, the user was a young person, aged between 25 and 30 years, who worked for a youth organisation.

In terms of general fact-finding, the statistics which were obtained tended to be those which appeared in previous work on this subject (particularly Proenza *et al.*, 2001 and Fernández-Maldonado, 2000a; 2000b; 2001). The statistics which exist in Peru are highly scattered and in many cases are compiled by market research companies which then sell the data to their clients for high prices. It was possible to obtain some of this information 'informally'. A further problem is the nature of the data which is available, since that which is presented by market research firms often relates to e-commerce (Fernández-Maldonado, 2000a), and is responding to the demands of "commercial interests pursuing a global business agenda" (Gómez, 2000).

Finally, there was also the issue of attitudes in Peru to the concept of studying the Internet. The reaction of the library staff of one well-regarded collection was interesting: when asked if they had anything about the Internet and/or *cabinas públicas*: they replied they only had material on sociology, anthropology and politics, the implication being that the Internet did not fit into these categories and was therefore not to be taken seriously. According to one academic conducting research on *cabinas* (one of the few), there remains a traditional vision of the social sciences in Peru which means that not only is there resistance to the study of such new technologies within the discipline, but it seems that social scientists have themselves not integrated the Internet into their working lives. This lack of familiarity with the medium further compounds a general resistance to the study of non-traditional subjects, as confirmed by Kogan: "[e]n el ámbito académico, en el Perú hay muchos que se resisten a pensar en la influencia de la cibercultura o de las nuevas tecnologías interactivas sobre nuestra realidad social... Necesitamos pensar las nuevas realidades sociales y las nuevas tecnologías como parte de nuestra cultura"(1998:228).

⁷ Observation made by Ana María Fernández-Maldonado, personal communication.

⁸ The emerging term for those who own and/or run the *cabinas*.

Chapter I. The Internet: alternatives of progress and exclusion⁹

Since the very early days of the Internet, there has been "a powerful global belief in its transformatory potential" (Wilson & Heeks, 2000:412), particularly in terms of what it might offer to the poorer countries of the world. The Internet has been interpreted by many as a panacea for redressing disparities and inequalities between and within countries, a magic tool which would spontaneously deliver everything which decades of 'development' had so far failed to achieve. As the *Human Development Report* of 1999 stated, "[c]ompared with most traditional tools for development, information and communication technologies can reach many more people, go geographically deeper, work faster and at lower cost" (UNDP, 1999:61). This new technology came to be seen as synonymous with development, making the main goal of development to connect as many people as possible to the Internet as quickly as possible. Conversely, the main problem of development became the fight against inequality of access to information and communication technologies (Wilson & Heeks, 2000:418-419).

This is not to say that discussion of the potential of the Internet has been unequivocally positive. From the beginning, concerns were raised about the uneven diffusion of these technologies in poorer countries, and the potential for exclusion from, rather than inclusion in, the new global and local scenarios shaped by the emergence of ICTs. According to one major study, "[t]here is a very high risk that these technologies and services will deepen the disadvantages of those without the skills and capabilities to make the investments required for building innovative 'knowledge societies' (Mansell & Wehn, 1998:1). It was also clear that the obstacles to achieving widespread Internet access by the populations of poorer countries were deep-seated and multidimensional, including not only problems of physical infrastructure such as the availability and affordability of access to the telecommunications network, the cost of buying a computer, and the higher costs of providing Internet services in these countries, but also issues surrounding human capital (literacy, English language skills) and pre-existing social exclusions (for example on the grounds of age, gender or ethnicity, or simply poverty) (Mansell & Wehn, 1998; Panos, 1998).

However, there are also problems associated with focusing simply on access as the yardstick of a successful experience with ICTs. As Beamish (1999:364) comments, although access to ICTs is now accepted as being inarguably important for low-income communities, there is a lack of clarity as to why this should be so, and indeed as to what communities might be expected to achieve as a result of this access. Sanyal & Schön (1999:377) stress that "even if

⁹ Phrase taken from Mansell & Wehn (1998:242).

access is provided [to low-income communities], it is unclear whether it will be enough to integrate them into the nation's mainstream economic, political and social life". Although a focus on access alone is clearly insufficient, other 'appropriate' or alternative indicators for measuring the impact of ICTs do not yet exist (Mansell & Wehn, 1998:14), nor is there much serious empirical evidence or analysis of the actual experiences of poor communities with ICTs and the effects these have had on their economic and social livelihoods (O'Farrell, 1999; Shiffer, 1999:204-5). Until this is the case, it is argued that "efforts to demonstrate how people are empowered by knowledge will lack credibility" (Gómez & Lamoureux, 1999).

One practical solution which has emerged in dealing with the multidimensional problem of access to the Internet by poor communities is that of the telecentre, defined most simply as a that provides public access to information and communications "shared site technologies" (Proenza et al., 2001:iii). The telecentre is a model adapted to the reality of many poor countries where access even to a telephone, let alone to a computer, is often not guaranteed to many inhabitants. It has gained the support of the international development community because it seems to offer the possibility of a significant impact and progress towards 'universal access' in a relatively short period of time, without heavy investment (idem). However, Gómez (cited in Patterson & Wilson, 2000:83) warns that despite the populist appeal of telecentres and their dramatic impact on theory relating to ICTs and development, yet again little empirical evidence has come to light so far of positive impacts by telecentres on communities. He suggests that this model has been overhyped in terms of the kind of results it could deliver and how quickly this was expected to happen. Furthermore, the establishment of a telecentre may also have a categorically negative effect on a community, by "strengthening local factionalisms and creating new power struggles, further marginalising women or illiterates, and demobilising the community from pursuing other priority activities" (Gómez, 2000).

Opinions vary as to whether or not a *cabina pública* can be classified as a telecentre. Of course, both terms are generic and cover many different types of establishments. There is also the possibility of using the term 'cybercafé' but this is usually rejected as inappropriate for a low-income or developing country setting since it tends to be associated with a rather more luxurious experience, and Peruvian *cabinas* are usually – though not always – fairly functional spaces¹⁰. They do however offer a wide range of services aside from simply a connection to the Internet, including scanning, typing, printing and faxing, international phone calls, online games, training, the sale of computing materials, and refreshments. In fact, this 'multifunctionality' has been

¹⁰ Carlos Torres (2001) described the *cabinas* as cybercafés adapted to the Peruvian social and economic reality.

identified as a key reason for the sustained success of the *cabinas* (Fernández-Maldonado, 2001). In considering the Peruvian model, one study (Proenza *et al.*, 2001:vii) chose to qualify the category of telecentre further by describing *cabinas* as 'commercial' or 'market-based' telecentres. Beamish (1999:352), writing about the United States, omits the category of 'cybercafés' from her analysis entirely because she considers that "a fundamental difference exists between grassroot community computing initiatives that see their users as residents and neighbors and the commercial ventures that view their users as consumers and customers". This differentiation is interesting to consider with relation to Peru, where the majority of *cabineros* do probably by necessity view their users in the latter way. However, in their discussion of cybercafés' "may reduce this array to include those that offer preferential rates or services to community or local organizations, although they continue to be commercial businesses open to the general public...the rapid growth and popularity of this kind of activity may indicate a model for other telecenter practitioners to learn from".

So some degree of commercialisation does seem to be acceptable for telecentres. However, Proenza *et al.* (2001:vii) found that while commercial telecentres, i.e. *cabinas*, were "excellent vehicles for increasing Internet access", they had "a particularly limited capacity to benefit low-income populations with little education". In fact, the low-income population served by the *cabinas* in Peru was found to already have a substantial stock of human capital, in other words to already possess the skills necessary to take advantage of ICTs (*idem*, iv). Fernández-Maldonado (2001) also makes this point, stating that the *cabinas* have so far served a relatively young and well-educated sector of the Peruvian urban population. This is backed up by another study, which found that Peruvian Internet users in the lower socioeconomic bands constituted "un grupo de una importante tendencia o costumbre de 'estar informados", and that they consulted the media more frequently or regularly than the average for those in their socioeconomic category (A & G Asociados, 2000).

The potential of ICTs to live up to the huge expectations with which they are associated is clearly inseparable from the need for investment and improvements in the education provided to low-income communities: "without literacy and basic computer skills people will have little access to the network society" (UNDP, 1999:62). The concern is not just with improving the education of young people and future generations, although this is clearly fundamental, but also, perhaps more importantly, on equipping novice adult users and those from traditionally excluded groups with the skills necessary to make the most of this new technology (Proenza *et al.*, 2001:v). In this way, telecentres could become "hubs for skills training and capacity building" (UNDP,

1999:65); however, this is least likely to happen in commercial telecentres, because, as discussed above, the vision of the *cabinero* is based on the benefit he or she sees for the business from providing access and/or training to the user, rather than the benefit which might be gained by the user from this experience (Kerrigan, 2001).

A further issue related to the provision of training in ICTs is the risk of provoking the emigration of those who receive training (Santoyo, 2001; Saravía, 2001). It has already been established that the *cabinas* are most used by relatively young and well-educated Peruvians. 40% of the Peruvian population was under 15 years of age in 1990, and as a result of this, it is estimated that the size of the working population in 2020 will be more than double what it was in 1996 (Figueroa *et al.*, 1996:45). Mansell & Wehn (1998:111) confirm that providing training to this group may have contradictory effects for the country as a whole: "as these younger workers acquire skills that are in demand in the industrialised countries, there is a risk of a 'brain drain' from developing to industrialised countries placing additional pressure on the educational infrastructure in developing countries".

In assessing experiences with public access points, it is also particularly important to consider what people themselves want from ICTs, and whether access to improved communications services may be considered as a form of development. From a human development perspective, this is clearly the case: "[a]ccess to information and the capacity to interact and network with distant others can clearly increase choice and empowerment" (Featherstone, 2000:216). According to a Panos report (1998), the popularity of the Internet, and particularly e-mail, in developing countries can be attributed to the fact that it allows for reliable, quick, efficient and cheap communication, which is nothing short of revolutionary when placed in context. Peru has a notoriously expensive and unreliable postal service, and the national ratio of 6.7 fixed telephones per 100 inhabitants is one of the lowest in the region (cited in PC World, 2001a). According to Nagaro (1999:23) the cabinas are perceived as a vehicle of development by their users simply because they open up a new field of knowledge and contact with people from other parts of the world, and Proenza et al. (2001:13) state that the cabinas have essentially given Peru's low-income urban population access to a new low-cost means of communication. Migration is one further factor which helps to explain this "collective need for communication" (Robinson, 1998); migrants account for almost half the population of Lima (Ypeij, 2000:21) and an estimated 2 million Peruvians now live abroad¹¹.

¹¹ It was difficult to track down a precise statistic for this; the estimate was provided by Javier Díaz-Albertini and corroborated by www.api.alter.org.pe/psf/ingles/boletines/boletin29/Default.htm, which stated that 8% of the Peruvian population now lives abroad.

These uses of the Internet should not be devalued. In fact, care should be taken not to make any value judgements about the way in which the technology is put to use by a particular society. It is all too easy to evaluate the *cabinas* according to the interests of everyone other than the users themselves, when it is in fact precisely their appropriation of and enthusiasm for the instrument which gives it meaning and value. However, some concerns have (perhaps legitimately) been raised about some of the uses which are made of the Internet in Peru, such as 'excessive' chatting and the downloading of pornography. It does seem that in some cases the potential of the Internet as a tool for community development is not being realised, though this may also emerge spontaneously as the technology is progressively appropriated by users. Fernández-Maldonado (2001) found that ICTs were not yet fully integrated into the daily lives of low-income groups in Lima, though it may be that, paradoxically, *cabinas* offer a disadvantage in this respect, since they constitute a physically separate space for the use of ICTs, and one which is usually visited during leisure time, in the evenings or on Fridays and weekends (PA Comunicadores, 2000, cited in Etecé, 2001:31). In order for the Internet to become more integrated into the lives of low-income communities, training is vital. As well as access to new technology, people need access to that technology being used in interesting ways (Shiffer, 1998:277).

Chapter II. The development and expansion of the *cabinas públicas*

Proenza *et al.* (2001:14-15) identify two stages in the development of Internet access in Peru so far: one which took place before the development of the telecommunications infrastructure under the Spanish firm Telefónica, and a second one, triggered by this expansion of infrastructure and the subsequent competition for Internet users and drop in connection charges, which was characterised by the proliferation of the *cabinas públicas*. The first phase, essentially non-commercial (Nagaro, 1999; Fernández-Maldonado, 2000b), is associated with the development and decentralisation discourse of the RCP, and was found to have benefited "un sector de los profesionales, intelectuales y estudiantes de los sectores más modernos de la sociedad peruana"(Díaz-Albertini, 1996). The second was more explicitly commercial (Nagaro, 1999; Fernández-Maldonado, 2000b) but also managed to bring Internet access to a broader section of Peruvian society. If the RCP can be considered the main player in the first phase, it most definitely lost this status in the second phase, when both large commercial interests and small-scale entrepreneurs became centrally involved in the process.

As indicated above, it is impossible to discuss the phenomenon of the *cabinas públicas* without mentioning the RCP. In fact, it is all too easy to understand the growth of the *cabinas* in Peru and the role of the RCP in this growth as one and the same thing. Certainly, it was the RCP which set up and ran the first *cabina* in Miraflores in 1994, and the organisation did play an important pioneering role (Proenza *et al.*, 2001:14) not only in the development of the public access model but also in the growth of the Internet in Peru in general terms. The RCP was essentially responsible for creating and disseminating the model of the *cabina pública* (Nagaro, 1999:10), and it is probably precisely because of the way in which they 'marketed' their efforts that so much international attention has been focused on the Peruvian case. The RCP's approach was also seen as important for the 'democratisation' of the general telecommunications landscape in Peru, since it opened up the sector to civil society actors and broke the pattern of domination by government and commercial interests (Díaz-Albertini, 1996). However, this has not proved to be sustainable.

The RCP's activities have not been limited to the promotion of *cabinas públicas*. Its efforts to build a portal site were also important (Gómez, 2000), as were its efforts to set up and administer mailing lists. The RCP began its life as the only Internet service provider in Peru, although as the name suggests, its role as a network promoter and facilitator was always at the heart of its activities. During the first half of the 1990s there was rapid growth in the number of subscribers, rising to 900 individual and institutional associates and 20,000 Internet accounts in

the mid-1990s (Díaz-Albertini, 1996). An emphasis on training also constituted a key element of the RCP approach; between 1995 and 1999 it provided training to more than 50,000 people (RCP, n.d.), and it seems that this *"labor de evangelización"* (Santoyo, 2001) was successful in demonstrating the importance and potential of the new medium to a generation of young, recently graduated, engineers and technicians (Proenza *et al.*, 2001:14). However, for the majority of Peruvians the model of Internet access offered by the RCP - at US\$15 per month for a limited number of hours (*idem*, 15) - was simply too expensive, and despite its good intentions, the RCP failed to bring this new technology into the reach of the poorer groups in society. The RCP had intended to propagate *cabinas* across the country mainly through a system of franchises, yet this remained a model and never really took hold. The reasons for this were quite simple: the hardware, software, telephone line and Internet connection necessary to set up a *cabina* could all be obtained more cheaply on the open market, and therefore the franchise offered no advantages (*idem*, 25-26).

There were also external factors which help to explain why the RCP model was superseded by that offered by the country's private entrepreneurs. The role of the telecommunications sector is particularly important; during the 1990s, as neoliberalism took hold across the continent, most Latin American countries shifted from state monopolies to liberalised, deregulated and privatised markets. This brought foreign capital and investment into this sector and ultimately facilitated the explosive growth of the Internet in the region. In Peru, before the privatisation of the state-owned CPT and ENTEL in 1994, telecommunications services were characterised by their low penetration (except in Lima and in high-income sectors), long waiting lists for installation, a shortage of public telephones, high costs and inefficiency (Fernández-Maldonado, 2000b). This rather unattractive package was sold to Telefónica de España, one of the ten largest telecommunications firms in the world and one of the most aggressive in its strategy of expansion into international markets (*idem*), with stakes in the telephone companies of several other Latin American countries other than Peru (Belejack, 1996:16). Under Telefónica's management, there was significant investment in and expansion of the telecommunications infrastructure. In fact, according to Fernández-Maldonado (2000b), telecommunications is the sector which has attracted the highest proportion of foreign investment in recent years; the development in this area appears to have been at the expense of that in other sectors, since she also states that telecommunications is the only infrastructure to have improved in Lima over the last few years.

Inevitably, Telefónica entered the Peruvian Internet market in 1996. This marked the beginning of the intense competition which was to lead to a dramatic fall in the price of access to

the Internet and the proliferation of *cabinas*: "[1]arge numbers of persons who, though enterprising and technically prepared faced very little prospects for well-paid employment, rapidly entered the field. It was at the end of this second stage (1998-2000) that the number of cabinas in operation literally exploded" (Proenza et al., 2001:15). Although the model of the cabina was supposedly adapted to the socioeconomic reality of country, the RCP had not got it quite right. In order for this new service to really take off, one further stage of adaptation was necessary which would take its development out of the hands of a well-meaning nonprofitmaking organisation and place it firmly in those of the country's small-scale entrepreneurs. Perhaps one of the strongest defining features of the Peruvian urban landscape is the all-pervasive informality in employment which spills over into much of the service provision to low-income communities. In many ways the *cabinas* represent the newest manifestation of this informality in service provision, and through their multifunctionality they meet previously unfulfilled demands for libraries, recreation facilities, study places and youth centres in low-income urban communities (Fernández-Maldonado, 2001). They demonstrate the potential success of informality and/or the private sector in providing a low-cost service to a sector of the population neglected by the state; this is therefore very much in line with the neoliberal project of 'rolling back the state', and perhaps provides another explanation for why the Peruvian experience has been so universally celebrated.

The informal sector is not yet involved in low-cost provision of dedicated lines or Internet service providers (although there are anecdotes of *cabinas* somehow managing to share dedicated lines), but its role is unquestionably of great importance in the hardware and software markets. The hub of these markets, known as 'Wilson', is between blocks 11 and 18 of Avenida Garcilaso de la Vega in the centre of Lima: "Wilson, es el 'Silicon Valley' peruano, y significa la convergencia entre mundo informal y el mundo informático"(Nagaro, 1999:3). Wilson's many small stalls, arranged in several galleries, offer the most up-to-date software, computers and accessories, at the lowest prices. The vendors who deal in pirated software are highly organised, and club together to buy programmes which are then copied, allowing all of them to sell their products at the same price (*idem*, 13). The price in June 2001 for an individual CD-ROM containing a wide range of programmes was a mere 10 *soles*. There is also a clear division of labour between those who sell software (whose wares are displayed in endless and bewildering photocopied lists in plastic folders) and those who deal in hardware. When purchasing a computer at Wilson, a quote is provided according to the customer's specifications, and the machine is then assembled to order, usually within a couple of hours.

Piracy is a fact of life in Peru, and is not confined to computer software, also affecting books, music, liquor, clothing, and other products. In recent months attempts by the government and software manufacturers to fight this phenomenon have been stepped up. INDECOPI (the Peruvian copyright agency) has reportedly been raiding *cabinas* to check for software licenses and Microsoft recently signed an agreement with ANCI (the Asociación Nacional de Cabinas de *Internet*, which has 300 members nationwide) in an attempt to halt the illegal copying of its programmes in Peru (El Comercio, 2001a). However, it is precisely the lower cost and easier availability of pirated software and generic hardware which has allowed the *cabinas* to expand so rapidly and to provide such cheap access to the Internet, although this state of affairs also has much to do with the software manufacturers' high original costs and reluctance to offer special licenses for their products.

As discussed above, the model of the *cabinas públicas*, which was conceived as a tool for development and decentralisation, has in practice been appropriated by small-scale entrepreneurs, including those from the informal sector. They have seen a business opportunity in the possibility of offering a public service to Peru's low-income population who previously had few reliable communications options at their disposal. Of the total number of cabinas, less than half are estimated to be informal¹² (El Comercio, 2001b). The motivations of entrepreneurs for entering this particular line of business are clearly very different from the philanthropy implied by the RCP's seductive rhetoric. Although the computers may ultimately fulfill a social role, the *cabinero* is likely to be most concerned about his own survival (Ticona, 2001). A parallel¹³ can therefore be drawn between the *cabinas* and Peru's so-called *cultura combi*, whereby a proliferation of small businesses emerge, set up with redundancy payments in the context of an economic crisis. These businesses often operate around the clock and employ family members. The sole focus is on keeping the business afloat; no taxes are paid and there is little expenditure on repairs or reinvestment. This phenomenon is also linked to the perceived Peruvian tendency to 'baratearse': to find the cheapest possible way of doing something and thereby almost undercut oneself (Kerrigan, 2001; Torres, 2001). Today, the cabina market in Lima seems close to, if not actually at, saturation point, and in this climate of fierce competition, *cabinas* survive only by offering discounts to entice more customers, using pirate software, avoiding or cutting rent by taking advantage of space in family-owned premises, and by offering a variety of additional services, as discussed earlier (Proenza et al., 2001:17). During fieldwork, one cabina was even seen offering Internet access for 1.99 soles an hour, a tactic often employed in the UK but which

¹² No details are given of how 'informal' was defined.
¹³ I am grateful to Carla Colona from the Universidad Católica for this observation.

works less well in a currency which does not have coins in denominations smaller than 10 *céntimos*. The usual cost is between 2 and 4 soles an hour.

The RCP itself continues to exist, if in a somewhat different incarnation. Although its website (RCP, n.d.) gives the impression that the RCP remains active and prominent in the *cabina* business, and projects a misleading image of *cabinas* in Peru as large, modern spaces with fashionable Apple Macintosh computers and classrooms for training sessions, in actual fact, a recent change in the management at the RCP has resulted in the closure of all but one - flagship cabina near the organisation's headquarters in San Isidro, Lima. As Everett (1998:386) reminds us, promoting the Internet in Latin America has much to do with self-representation, and the RCP has certainly been successful on that front, with generally positive coverage from the press at home as well as the flurry of international interest, and a well-recognised and highly visible brand. The RCP's activities as a self-styled development NGO are now separated from the commercial and technical activities of an Internet service provider; the latter are the responsibility of a company called Infoductos which was generated when the organisation was split in two. The first experiences under this new division of labour will be two joint pilot projects outside Lima with the NGO CARE-Peru. These projects are based on the understanding that the model of the *cabina* has already been conceptualised as a centre for access to information and training, but that in order to be successful, particularly in a rural setting, it must have strong links to the community and complement rather than compete with existing information flows (Venturo, 2001).

The real power seems to lie with Telefónica and its subsidiary Terra Networks. The most recent research (Apoyo, cited in PC World, 2001d) shows that Terra is now the biggest Internet company in Peru, serving 52% of those who connect from home (only 13% use the RCP). Terra also operates a popular portal site and its advertising (on clocks, mousepads, posters and other merchandise) swamps the *cabinas*. The Peruvian case therefore encapsulates the basic tension surrounding the Internet, or indeed any technology: "although [it] may be a tool for development, it is also a means of competitive advantage in the global economy" (UNDP, 2001: 8). The question is whether these two very different visions can be reconciled, and how.

Chapter III. A case study of two cabinas

In the last few years, the *cabinas* and their brightly coloured 'Internet' signs have become a highly visible feature of the Peruvian urban landscape¹⁴, gradually spreading to almost all cities and neighbourhoods. In Lima, this process has taken place alongside other changes: cafés in residential areas, new shopping centres, attempts to renovate the historic city centre, a proliferation of discotheques, whole streets given over to entertainment and recreation in the *barrios populares*, new pubs and fried chicken restaurants. All these locations offer the city's inhabitants the chance to escape from their routines and to lose their bearings for a short while (Grompone, 1999:204). The *cabinas* are particularly well used by young people, and have become popular meeting places, alongside the more established locations (the *parroquías*, *discotecas*, *chichódromos*, *canchitas de futbol*). Fernández-Maldonado's hypothesis (2001) is that for these young people, the Internet represents a window onto a world from which they are excluded, "the easiest way to connect to 'modernity', to participate, at least virtually[,] in the more advanced part of the world, which for many of them has more to offer than real life in a poor megacity".

The *cabinas* have also taken their place as an index of modernity in Lima's landscape of aspirations. Many employ slogans such as '*Internet, ahora a tu alcance*' and '*Internet, más tuyo que nunca*', designed to tempt first-time users into this new world, which already has so much 'first-world baggage' associated with it. This landscape of aspirations is closely linked to the gradual embedding of the contradictions of a market society: "[I]os actores sociales en el Perú están viviendo al mismo tiempo las promesas de una sociedad de mercado que busca imponer un nuevo sentido común en las gentes y la experiencia de sus límites"(Grompone, 1999:31). Fernández-Maldonado's (2001) hypotheses also pick up on this idea of aspirations, suggesting that the Internet has proved so popular among low-income sectors of Lima's population for reasons closely connected to their sociocultural characteristics. Firstly, in the context of a prolonged crisis, every (new) resource at hand is seized upon as a potential instrument to improve one's life chances, and secondly, there exists a particularly strong belief that education represents one of the best ways of doing so.

The first case study offered here is that of a *cabina* located in the district of San Martín de Porres, in Lima's Cono Norte. The population of the Cono Norte (encompassing eight districts) is estimated at 2 million, almost a third of the population of Lima as a whole (Alternativa, n.d.). The population continues to grow rapidly and this is aggravating the already grave situation with regard to housing and basic services. Two out of every ten families do not have housing and only two out of every five families have an adequate supply of water (*idem*). The *cabina* is run by the NGO Alternativa, a centre for social research and population education which has been active in this area of the city since 1980 and works on many different issues, including local government and citizen participation, local economic development and small enterprises, housing and environment, and food security and health. It also runs a leadership school. The *cabina* is conceived of as having a 'transversal' role, cutting across all these thematic areas in order to satisfy the demand for training in ICTs from the different teams working with social actors in the community (Kerrigan, 2001). It is located on the NGO's own premises.

It was set up in 1997 (the first *cabina* in the Cono Norte), and came about as a result of two initiatives which converged. The RCP was interested in spreading knowledge of the Internet in low-income communities, and at the same time Alternativa itself became aware of the potential benefits of Internet access and training as well as a growing demand for this from the community. At this point what little public Internet access was available tended to be a long way away, both physically and metaphorically, from the inhabitants of the Cono Norte (e.g. in universities), and to be prohibitively expensive. Alternativa, as a founding member of the RCP, had been using the Internet since 1993 and was interested in exploring how it might be able to share this new technology with others, and to teach them how to use it themselves. The RCP provided non-financial support such as personnel for the installation of the *cabina* and technical advice, and Alternativa carried out a viability study and produced a proposal. The investment was made by the NGO itself, with the help of a bank loan.

The inauguration of the *cabina* in April 1997 created high expectations. A press release (Alternativa, 1997) stated that the Internet access point would be a powerful instrument for the integration of the Cono Norte with the rest of Peru and with the world, and would allow Alternativa to fulfill its objective of 'democratising' information through the provision of the tools necessary both to produce information and to gain access to it. Alternativa had also just set up its leadership school, and the first group to attend it was eager also to be the first to receive training in the *cabina*. Training was therefore at the centre of activities in the *cabina* from its inception. The inaugural session took place from April to July 1997 and involved 30 people sharing 20 computers, because the demand was so high.

The success of this first experience produced a contagion effect, with requests for training coming in from all the different departments. It should be noted that the *cabina* does not provide

¹⁴ The *cabinas* are fundamentally an urban phenomenon which is spreading from Lima to other cities (Fernández-Maldonado, 2000a).

training only in the use of the Internet, but rather in general computing and ICT skills. So whereas as some departments might wish to have more emphasis placed on spreadsheet and word-processing programmes, others, such as those working with small businesses, might particularly request that attention be focused on developing Internet proficiency. In this way, the training is closely linked to the activities of the different departments. Although all trainees are shown how to set up and use an e-mail account, how to chat, and how to use the Internet for fun, the aim of the *cabina* is essentially to show users how to find and use the information which is relevant to them as leaders. Before each course begins, the team conducts a search for websites linked to the particular area of interest of the group, so that they can be pointed to this content during the training. As Santiago Kerrigan (2001) explains, "*apostamos para que el usuario conozca todo*".

He also believes that there have been significant changes in many aspects of Alternativa's work as a result of setting up and using the *cabina*. He feels that the whole pattern of relationships between the NGO and the community has changed. In his opinion, all too often NGOs take the initiative on behalf of the social actors with whom they work, for example by writing letters and proposals for them. However, now, with the *cabina*, members of the community can do this for themselves, they have lost their fear and are taking control of the instruments:

ahora la señora viene, le dices 'ya, te presto la computadora y tú hazlo', y ellas lo hacen. Así es. Ahora buscan información, lo hacen por su cuenta. No necesitan que o los compañeros de arriba o nosotros estemos ayudando...Simplemente nosotros dejamos que ellas mismas lo hagan. O, vienen acá, agarran y dicen 'préstame un par de horas' y se ponen a buscar por su cuenta. Y salen, con su diskette, dicen '¿me puedes imprimir esto?'; ya tienen su información, lo que buscaban (idem).

This is backed up by the experience of Jorge¹⁵, a 28-year old student and leader of a youth organisation who received training in the *cabina* as a participant in the leadership school. Although he had taken some computing courses at university before his contact with Alternativa, the software there was out of date, the machines were old and there was no Internet access. He had heard his friends talking about the Internet but was frustrated by his lack of understanding and decided to find out more. As one of the younger participants in the leadership school, he found the training easier than some and began to help the teacher: "*Todos aprendieron bien…era un mundo nuevo. Sentí una sensación de poder*". His contact with the new technology gave him a feeling of being included, rather than excluded, and he perceived an improvement in his self-esteem and that of the others. In his view, "*toda persona debe tener una capacitación, sino se quedan analfabetos*".

Jorge feels strongly that the Internet has had a positive impact on his organisation and the way in which they work: it is "*una gran herramienta para organizar*". E-mail allows for an ease of communication with other organisations, both in Lima and abroad. Using the Internet for this purpose has produced a significant saving since it is cheaper to send an electronic message than to call by telephone or to travel to visit someone in person, as was necessary before. He and his fellow leaders are able to download important information from the Internet themselves and have also subscribed to a number of mailing lists. They also access information relating to international organisations which offer funding, using translation software where necessary.

The subject of the second case study, Mega Virtual, is a privately operated *cabina* located in the district of Villa El Salvador, in Lima's Cono Sur. Villa El Salvador is a district with a strong sense of identity and collective history, and a long history of autogestion or selfmanagement; it constitutes "a common reference for virtually any discussion of grassroots organizing in Peru" (Burt & Espejo, 1995:19). Founded in 1971 as a result of a famous land invasion under the Velasco government, by 1989, its inhabitants represented 4% of the total population of Lima, 15% of the city's shanty-town dwellers, and 30% of the population of the Cono Sur (Riofrío, 1991:220). There are many NGOs working in Villa, and the district receives many foreign visitors, often on exchange programmes. Villa has its own Centro de Comunicación Popular, which runs a television channel (Canal 45) and a radio station as well as a variety of workshops on various themes linked to communication. All this must be taken into account when considering the experiences of this community with *cabinas*, since "[p]oor communities with the highest 'social capital' of effective community institutions will [...] be the most effective users of IT"(Wilson & Heeks, 2000:420). Villa El Salvador also has a high percentage of young people amongst its population; one estimate placed at 65% the number of under-25 year olds (Zavalú, 2001). An early survey of *cabina* users in Villa (Nagaro, 1999) found that the majority were female (60%) and that the average age was 20.36 years.

There have been *cabinas* in Villa El Salvador for several years. The first experience with public access to the Internet came in 1997, when five basic *cabinas*, each with two computers, were set up across the district as part of a project bringing together the Asociación Civil Kybernesis (an NGO), the municipality, the Centro de Comunicación Popular and Canal 45 to run a *'Municipio Cibernético'*, the first of its kind in Latin America (El Comercio, 1997a). 30 inhabitants of the district were trained in the use of computers and the Internet, the aim being that they would then share these skills with other members of the community (El Comercio, 1997b). The project, a one-off experience, enabled a limited group of citizens to participate and vote in a

¹⁵ The names of the users have been changed.

council meeting via the online network. However, due to some problems, the running of these *cabinas* was ultimately taken over by private individuals and they became more like *cabinas* in other parts of the city (Nagaro, 1999:3). According to Mega Virtual's *cabinero*, John Zavalú (2001), the significance of this experience with the Internet was appreciated by those who participated personally; however, the choice of location of the *cabinas* meant that they were less accessible to the wider population. In his opinion, if the project were to be attempted again in the present day, the presence of so many *cabinas* would guarantee a wider participation from the inhabitants of Villa El Salvador, and therefore greater success. There is a much greater familiarity with ICTs in the community today due to the proliferation of *cabinas*.

In August 2000, there were only six *cabinas* in the district, but the number has grown rapidly in recent months and there are now estimated to be more than fifteen (Primicia del Sur, 2001:14; Zavalú, 2001). There is a good relationship between those who run the *cabinas*, and they have an agreement to charge the same price for access – currently 2 soles per hour (Ticona, 2001; Zavalú, 2001). In keeping with the district's tradition of community organisation, the *cabina* owners recently held a meeting to form their own association, with the aim of providing a quality service to users, carrying out wider training activities and formulating a collective strategy to deal with the problems related to software (Zavalú, 2001). The majority of the *cabinas* are concentrated in the centre of Villa, near the town hall, because the location offers security (proximity to the police station), convenience for users and a high density of local traffic (many businesses are in this area) and the presence of a large number of young people (there are many educational institutes and nightclubs nearby). It is thought that approximately 3000 inhabitants of Villa El Salvador use the Internet every day (Primicia del Sur, 2001:14); each *cabina* tends to have a fixed clientele of regular users (Ticona, 2001). Although this *cabina* has been in existence for less than a year, it has already grown from six machines to nine; there are plans to acquire more computers for the *cabina*, and also to set up community access centres in the Pachacamac area of Villa El Salvador, where many new migrants settle. The *cabina* currently receives an average of 130 users per day, the majority of whom are teenagers and young adults (Zavalú, 2001).

As well as participating in the *Municipio Cibernético*, John Zavalú had previously worked on a pilot project at Villa El Salvador's Parque Industrial whereby the goods produced there (mainly furniture) were advertised and sold over the Internet. In the *cabina* he is helped by several other young people, usually two at any time, who roam about the space and provide help, advice and supervision to the users. The aim is that this should be a space for self-instruction (*autoaprendizaje*), with some guidance where necessary. As well as being a business venture,

John sees the *cabina* as a way of fulfilling his 'social responsibility'. In accordance with this vision, he operates a system of vouchers offering a free half hour of Internet access; the aim is to allow carefully selected users (for example, those he is aware are in a particularly precarious economic situation) the opportunity to benefit from the technology, so that their desire to use the Internet is not frustrated.

The *cabina* does not simply provide access to information via the Internet. The walls of the space are covered with posters from the municipality and other local organisations, giving information about a variety of services including credit availability for women and training courses. Users are pointed to the information that might be relevant to them. John sees this as an important part of the service he offers: *"una cabina es un vehículo de transmisión de ideas...de corrientes de opinión"*. He is also aware that *"las cabinas multiplican la información"* because users may pass this information networks within the community. Certainly, important friendships seem to be built up both between users who meet at the *cabina*, and between users and those who work in the *cabina*. John's role can be seen as that of an 'information broker' (Saravía, 2001), but it must be emphasised that this is not always the case; it happens *"por decisión propia de aprovechar el espacio"* (*idem*). Many *cabinas* can and do survive without this input, but where it does occur, it appears to be a key determinant of the success of the *cabina* in social terms:

Behind every successful telecenter – whatever its type – there is invariably a person – sometimes more than one – who is enthusiastic and personally committed to the success of the venture, acts with considerable independence and is intimately familiar with the locality and community in which the center operates, and is able to articulate the community's needs and satisfy its demand for services (Proenza *et al.*, 2001:39).

There is a high demand for training in Villa El Salvador, and this takes place both formally and informally in John's *cabina*. As well as the system of 'roaming advisers', he offers more structured courses at 80 *soles* per month, a subsidised price to make it more accessible to users without harming the business. It is also not uncommon for John to receive requests from people wanting to hire out the entire *cabina* for a group training session; in many cases the computing facilities in *cabinas* are better than those on offer anywhere else. Although the relationship is not as formalised as Alternativa, Mega Virtual is also used by many community leaders. One of these is María, 26, who works for a youth organisation and participates in several local and national youth networks. She began to use the Internet whilst working as a secretary in one of the municipal offices in Villa; at first, she used a friend's e-mail address but eventually she set up her own. She did not receive any formal training initially, but simply learned from her

mistakes and gradually developed her own way of finding what she needed. In June 2000 she took part in a month-long course, specifically for leaders of youth organisations, to learn about web page design. She began coming to Mega Virtual because she already knew John and because she liked the attitude of the people working in the *cabina*. Like Jorge, she feels that the Internet has had a positive impact on the work of her organisation: "*nos ha abierto muchas puertas*", particularly in terms of making communication with other organisations faster and more affordable. She sees the benefits of being in constant contact with a wide range of different people, both in Peru and abroad, and being able to find out about other experiences and projects: "*no estamos desactualizados*". In Villa, where there is so much contact with foreign organisations and individuals, the Internet has made these links much easier to maintain.

Fernández-Maldonado (2001) argues that Internet use in low-income areas has so far been an individual rather than a collective undertaking. This seems an interesting comment to make in the context of *public* access centres, since the experience of using a computer to access the Internet in a *cabina* is by implication more of a collective experience than doing so at home. Ongoing research suggest that by their very nature, these spaces subvert traditional categories of public and private¹⁶. The degree of privacy varies; in some *cabinas* the computer screens face the centre of the room and it is possible to see what users are doing, although there is usually a partition between machines. In others, the computer screens face the walls and the user is given absolute privacy. In many cases, groups of young people not only make their visit to the *cabina* together¹⁷ but actually share the individual booth and machine – this seems to be both a way to save money and to provide some kind of 'safety in numbers' for those who are only just gaining familiarity with the medium. It may also be linked to the popularity of online games; but ultimately probably has much to do with the dynamics of youth culture.

Although there is clearly a personal agenda for young people who visit the *cabinas* ("*el joven va a la cabina en búsqueda de sí mismo*"), it is often also a social, collective experience (Saravía, 2001). We see this in John's *cabina* in Villa El Salvador, where there is an important level of interaction among users and between users and *cabineros*. Also, with the growing popularity of Internet telephony, family groups are attending *cabinas* together in order to place a joint phone call to a relative living abroad. Yet, despite these collective aspects of *cabinas*, it seems that the Internet is most often accessed for the purposes of individual gain. Although the interviews with Jorge and María cited above showed that in both cases their new skills are being placed at the service of their youth organisations, and the training provided by Alternativa is also

¹⁶ Preliminary results of research conducted by Carla Colona of the Universidad Católica.

clearly aimed at equipping leaders with skills which could benefit the wider community, it must be stressed yet again that these are not 'typical' *cabinas*.

It seems that that even if there is interest in the potential of the new technology from local associations, such as those representing women, they have yet to develop their own websites (Kerrigan, cited in Fernández-Maldonado (2001). Content is certainly one important aspect of the debate around what the Internet could do for low-income communities, and this relates to the ideas set out earlier as to the limited value of assessing experiences with ICTs simply in terms of access. Mitchell (1998:161) argues that accessibility (rather than access) should not be defined just in terms of consuming online products and services, but also in terms of producing them. Content has important links to identity and self-representation, and its development constitutes a way of appropriating this new space, so that it does not become simply a medium for virtual interaction with sources, places and people distant from the community: "[t]he capacity to generate, distribute, and share information about local resources and activities is as important as access to distant digital information"(Mansell & Wehn, 1998:100).

The research conducted for this paper found that there did not yet seem to be a great deal of non-commercial locally generated content, in other words content resulting from the experiences of those in low-income communities who have used the Internet – and this while Peruvian content seems generally to be growing both in quantity and in popularity. Somewhat surprisingly, Villa El Salvador does not have a strong presence on the World Wide Web in its own right; perhaps the best known resource is the "Amigos de Villa" page, an online newsletter which is based on an Italian server. There is a link from this page to www.villaelsalvador.net, supposedly Villa El Salvador's portal, but the site is not currently working. This portal was set up with funding from DESCO, a well-known NGO which maintains an office in Villa; the material is now saved on one of the computers at the VillaNet cabina in the municipality, and there are hopes of resurrecting the site (Ticona, 2001). John Zavalú (2001) also spoke about his hopes of giving the *cabina* an online presence, with links to local associations and the Parque Industrial. Jorge, interviewed at the Alternativa cabina in the Cono Norte, said that his organisation was in the process of setting up its own website. Alternativa's own website offers some background information on the Cono Norte but the site does not appear to be aimed at the inhabitants of this district. Whether or not these efforts come to fruition, there is clearly great scope for innovation in the area of content provision. One example to follow comes from Rio de Janeiro in Brazil, where a well-known NGO, Viva Rio, recently launched a portal,

¹⁷ A study by APOYO found that half of those who used *cabinas* for Internet access tended to go accompanied by someone else (2000:6).

www.vivafavela.com.br, and a telecentre project, Estação Futuro, on the same day. It is the first portal in Brazil aimed specifically at the low-income population, and includes an online publication written by correspondents who themselves live in low-income settlements (Viva Rio, n.d.).

Conclusions

Ultimately, it has so far proved problematic to attempt to measure the 'social impact' of the Internet and public access points on Peruvian society. As Bossio Montes de Oca (1999:8) points out, it is very difficult to measure the real value which information has for beneficiaries, rather than simply its use in quantitative terms. This is equally true of communication. Even if we take access as an acceptable way of measuring impact, it seems that there is a long way left to go before the Peruvian case can unequivocally be characterised as successful, mainly because the users still constitute such a small percentage of the population as a whole, are concentrated in the capital, and represent an elite in terms of their educational level. Nevertheless, this situation is not altogether surprising and fits with the UNDP's findings on the concentration of Internet users worldwide: they are predominantly urban and located in certain regions, better educated and wealthier, young, and male (UNDP, 2001:40). However, there is some good news. The cabinas are certainly providing better access to communication and information to a significant proportion of the city's population, including many from low-income sectors. According to data from an Apoyo survey analysed by Fernández-Maldonado (2001), more than half of Internet users in Lima are from low and very low income groups (and these groups form the majority of *cabina* users). It seems that people are going to *cabinas* for specific purposes, and that they are generally satisfied with the effects on their ability to use computers and modern communications media (Proenza et al., 2001:24). This confirms the way in which a new technology can become appropriated by, embedded in, and defined by, a particular socioeconomic reality.

Nevertheless, we need to consider whether or not the *cabinas* have fulfilled their potential or if they could yet provide a vehicle for the achievement of social development and community empowerment, as suggested by some of the literature. Most importantly, a way must be found to extend the use of *cabinas* beyond those groups in society who already have higher levels of human capital. This will require a further process of adaptation of the model to fit with the realities and demands of these communities, but it is also fundamentally linked to a long overdue process of reform and investment in education and training.

Ironically, the success of the *cabinas* as an informal service may perpetuate the state's inactivity in this area; it has yet to become directly involved in this part of telecommunications policy, though recent developments suggest that this may change. In the last two years, the Internet has become a topic of public interest in Peru, and there are some signs now that the state is moving towards a more active role in the promotion of Internet access for all (*masificación*). Many voices now seem to be calling for state intervention but the question is what exactly the

focus of this intervention should be. During the transitional government, Internet access became a topic which could not be ignored, alongside corruption and decentralisation (Venturo, 2001). Supreme Decree 066-2001-PCM, passed in June 2001, set up a commission to formulate a National Action Plan for Promoting the Growth of Internet Use (PC World, 2001c). Alejandro Toledo also made pledges in this area during his campaign, and proposed the 'Plan Huascarán', but the details remain hazy of what this will involve in practical terms, and in this moment of flux in Peru clearly nothing can be taken for granted.

If state intervention becomes a reality, depending what form it takes, it could mark a departure from the pattern of Internet development in Peru so far. While it is generally accepted that the *cabinas* have spread as extensively as they have precisely because it was a spontaneous, informal process, this hands-off approach also meant that there was no vision guiding the process of expansion other than the survival instinct of a collection of small-scale entrepreneurs, and the goals of the larger commercial interests. The government must not restrict its role to that of regulating the telecommunications sector; there is significant scope for active involvement on its part. There is an increasing number of organisations and individuals in Peru who are keen to take advantage of this technology for social ends (Venturo, 2001). Yet they tend to have more ideas and proposals than finished projects with clear results. At the moment the main thinkers on this issue are not within government, or even in dialogue with government, and their impact is therefore limited to small-scale projects, rather than large-scale transformations.

An opportunity now exists for the potential of the *cabinas* to be harnessed for development goals, but in doing so it is necessary to think beyond access. Cheap access is simply not enough to guarantee that the potential of the Internet is realised in low-income communities, nor will it ensure that all members of the community are able to take advantage of the new technology, since this calls for particular skills. The Peruvian *cabinas* have been celebrated precisely because they appear to represent the triumph of the unfettered 'magic of the market', but although the market may be a "powerful engine of technological progress[,] it is not powerful enough to create and diffuse the technologies needed to eradicate poverty" (UNDP, 2001:3). The advice offered by Panos (1998) is pertinent to the contemporary Peruvian situation: "[i]f the market is ensuring that access is spreading (in terms of physical availability), the donors and NGOs can shift their focus, ensuring that the benefits are maximised and that marginalisation is minimised". Both of the case studies are *cabinas* which are essentially run as businesses (slightly more so in the case of Mega Virtual) but which came into existence because of a vision of the benefits which the Internet might bring to the communities in which they operate. Perhaps this

indicates that encouragement and demonstration can make some difference to how this technology is put to use.

There does seem to be a move towards incorporating the existing infrastructure, i.e. the *cabinas*, into development projects. The RCP and CARE are leading the way with pilot projects in Caraz and Cajabamba, and there have been suggestions that the facilities of *cabinas* may be increasingly used by nearby schools¹⁸, which could book blocks of time to provide training to their pupils. Clearly, the *cabinas* that already exist constitute a valuable resource which can be used in innovative ways. However, like any technology, the Internet is not an end in itself, but rather a means to an end. A focus on wider access must therefore be accompanied by the development of content (for and by the communities), and training to enable people to use this tool on their own terms.

¹⁸ As discussed on the 'Puertas Abiertas' programme on Televisión Nacional del Perú on 23 June 2001, part of the *Consulta Nacional de Educación*.

REFERENCES

- A & G Asociados (2000b) Perfil, Hábitos y Costumbres del Internauta de los NSE C y D de Lima Metropolitana
- Alternativa (1997) "Instala Primera Cabina Pública Internet en el Cono Norte de Lima Metropolitana", press release, available online at www.alter.org.pe/Cabina.htm (site visited 26/07/01)
- Alternativa (n.d.) "Presentación del Cono Norte de Lima Metropolitana", see www.alter.org.pe/conon.htm (site visited 06/08/01)
- Apoyo Opinión y Mercado (2000) Usos y Actitudes Hacia Internet
- Beamish, Anne (1999) "Approaches to Community Computing: Bringing Technology to Low-Income Groups", in D. Schön, B. Sanyal & W. Mitchell (eds.) High Technology and Low-Income Communities: Prospects for the Positive Use of Advanced Information Technology (Cambridge, MA & London: MIT Press)
- Belejack, Barbara (1996) "Cyberculture Comes to the Americas", NACLA vol. XXX, no. 3, Nov/Dec 1996
- Bossio Montes de Oca, Juan Fernando (1999) "Provisión de información para el desarrollo sustentable y participativo", *Tecnología y Sociedad, La revista de ITDG Perú*, no.5, January April 1999
- Burt, Jo-Marie & Espejo, Cesar (1995) "The Struggles of a Self-Built Community", *NACLA* vol. XXVIII, no. 4, Jan/Feb 1995
- Díaz-Albertini, Javier (1996) "Evaluación de Impacto Social de la Red Científica Peruana e Internet en el Perú 1991-1995", available online at www.rcp.net.pe/VFORO/memorias/esp/diaz5.htm (site visited 18/02/01)
- El Comercio (1997a) "Villa El Salvador: Municipio Cibernetico", 25 May 1997
- El Comercio (1997b) "'Municipio Virtual' empieza a ser realidad en Villa El Salvador", 22 May 1997
- El Comercio (2001a) "Cabinas contra la pirateria", 29 April 2001
- El Comercio (2001b) "A conectarse a Internet", 9 June 2001
- Etecé (2001) "Especial: El ¡Click! de las Cabinas", no. 29, 27 January 2001
- Everett, Margaret (1998) "Latin America On-Line: The Internet, Development and Democratization", *Human Organization*, vol, 57, no. 4
- Featherstone, Mike (2000) "Technologies of Post-Human Development and the Potential for Global Citizenship", in J. Nederveen Pieterse (ed.) *Global Futures* (London: Zed Books)

- Fernández-Maldonado, Ana María (2000a) "Internet en Lima: Experiencias y Proyecciones", paper delivered at the 50 Congreso Internacional de Americanistas, Warsaw, 10-14 July 2000, available online at www.bk.tudelft.nl/users/fernande/internet (site visited 27/08/01)
- Fernández-Maldonado, Ana María (2000b) "Las cabinas públicas de Internet en Perú: Perfil de los usuarios y los usos", available online at www.bk.tudelft.nl/users/fernande/internet (site visited 27/08/01)
- Fernández-Maldonado, Ana María (2001) "Patterns of social diffusion and use of new information and communication technologies in Lima", paper for the International Research Seminar on The Social Sustainability of Technological Networks, New York, 18-20 April 2001, available online at www.bk.tudelft.nl/users/fernande/internet (site visited 27/08/01)
- Figueroa, Adolfo, Altamirano, Teofilo & Sulmont, Denis (1996) Social Exclusion and Inequality in Peru, ILO/UNDP Research Series #104 (Geneva: Institute for Labour Studies)
- Gómez, Ricardo & Lamoureux, Emmanuelle (1999) "Enchanted by Telecentres: A Critical Look at Universal Access to Information Technologies for International Development", paper presented at the conference 'New IT and Inequality', University of Maryland, February 16-17 1999, available online at www.idrc.ca/pan/enchanted.html (site visited 29/05/01)
- Gómez, Ricardo (2000) "The Hall of Mirrors: The Internet in Latin America", *Current History*, vol. 99, no. 634, available online at www.idrc.ca/pan/pubhall_e.htm (site visited 05/02/01)
- Grompone, Romeo (1999) Las Nuevas Reglas del Juego: Transformaciones sociales, culturales y políticas en Lima (Lima: IEP Ediciones)
- Hilbert, Martin (2001) "Latin America on its path into the digital age: where are we?", Serie Desarrollo Productivo #104 (Santiago: ECLAC), available online at www.cepal.org/publicaciones/DesarrolloProductivo/5/LCL1555P/Lcl1555.pdf (site visited 07/08/01)
- Kerrigan, Santiago (2001) Interview with the author, June 2001. (Alternativa's cabinero)
- Kogan, Liuba (1998) "Género, Cuerpo y Sexualidad. Jóvenes de Clase Media en la Época de las Tecnologías Interactivas", in G. Portocarrero (ed.) *Las Clases Medias: Entre la Pretensión y la Incertidumbre* (Lima: Sur/Oxfam)
- Mansell, Robin & Wehn, Uta (1998) *Knowledge Societies: Information Technology for Sustainable Development* (Oxford: Oxford University Press)
- Miller, Daniel & Slater, Don (2000) The Internet: An Ethnographic Approach (Oxford: Berg)
- Mitchell, William J. (1998) "Equitable Access to the Online World", in D. Schön, B. Sanyal & W. Mitchell (eds.) High Technology and Low-Income Communities: Prospects for the Positive Use of Advanced Information Technology (Cambridge, MA & London: MIT Press)

- Montealegre, Ramiro (1998) "Waves of change in adopting the Internet: Lessons from four Latin American countries", *Information Technology and People*, vol. 11, no. 3
- Nagaro, Francisco (1999) "El Desarrollo de las Tecnologías de la Información y Comunicaciones en el Perú: La Aparición de las Cabinas Públicas de Internet. Estudio de Caso: Wilson y Villa El Salvador" (Lima: Facultad de Ciencias de la Comunicación de la Universidad de Lima)
- O'Farrell, Clare; Norrish, Dr. Patricia; & Scott, Andrew (1999) "Information and Communication Technologies (ICTs) for Sustainable Livelihoods: Preliminary Study. April – November 1999", AERDD/ITDG Briefing Document
- OSIPTEL (2001) "Indicadores del Sector: Estadísticas de Internet", see www.osiptel.gob.pe/cifydat/cont/indsec/internet.htm (site visited 02/08/01)
- PA Comunicadores (2000) Estudio Cuantitativo: Uso de Internet en Lima y Callao
- Panos (1998) "The Internet and Poverty: Real Help or Real Hype?", Panos Briefing no. 28, April 1998, available online at www.oneworld.net/panos/briefing/interpov.htm (site visited 19/07/01)
- Patterson, Rubin & Wilson, Ernest J., III (2000) "New IT and Social Inequality: Resetting the Research and Policy Agenda", *The Information Society* vol. 16 pp. 77-86.
- PC World (Perú) (2001a) "Telecomunicaciones en el Perú", 16 May 2001
- PC World (Perú) (2001b) "Acceso a Internet: en espera de un plan de acción", 27 June 2001
- PC World (Perú) (2001c) "D.S. no. 066-2001-PCM. Aprueban los 'Lineamientos de Políticas Generales para promover la masificación del acceso a Internet en el Perú", see www.pcworld.com.pe/Pcworld/html/2001-06-27-b/informeinternet02.html (site visited 19/07/01)
- PC World (Perú) (2001d) "Estudio sobre acceso a Internet", 9 August 2001
- Primicia del Sur (2001) "Internet: Más Que Ciencia y Diversión, ¡Información!", Año 3, No. 14, 13 de Febrero 2001
- Proenza, Francisco J., Bastidas-Buch Roberto & Montero, Guillermo (2001) "Telecenters for Socioeconomic and Rural Development in Latin America and the Caribbean: Investment Opportunities and Design Recommendations with special reference to Central America", FAO/ITU/IADB paper, available online at www.iadb.org/ict4dev/telecenters/ (site visited 27/08/01)
- Red Científica Peruana (n.d.) "Una historia de éxito", see www.rcp.net.pe/servicios/cabina/historia-exito.html (site visited 30/07/01)

Riofrío, Gustavo (1991) Lima: ¿Para Vivir Mañana? (Lima: CIDIAB/FOVIDA)

- Robinson, Scott S. (1998) "Telecenters in Mexico: The First Phase" (Geneva: United Nations Research Institute for Social Development), paper presented at the conference 'Information Technologies and Social Development', June 1998; available online at www.unrisd.org/infotech/publicat/robi/toc.htm (site visited 27/08/01)
- Sanyal, Bish & Schön, Donald (1999) "Information Technology and Urban Poverty: The Role of Public Policy", in D. Schön, B. Sanyal & W. Mitchell (eds.) *High Technology and Low-Income Communities: Prospects for the Positive Use of Advanced Information Technology* (Cambridge, MA & London: MIT Press)
- Santoyo, Eduardo (2001) Interview with the author, June 2001. (General Manager, Red Científica Peruana)
- Saravía, Miguel (2001) Interview with the author, June 2001. (Communications Manager, Intermediate Technology Development Group, Peru)
- Schön, Donald A., Sayal, Bish & Mitchell, Lillian J. (1999) High Technology and Low-Income Communities: Prospects for the Positive Use of Advanced Information Technology (Cambridge, MA & London: MIT Press)
- Shiffer, Michael J. (1999) "Planning Support Systems for Low-Income Communities", in D. Schön, B. Sanyal & W. Mitchell (eds.) *High Technology and Low-Income Communities: Prospects for the Positive Use of Advanced Information Technology* (Cambridge, MA & London: MIT Press)
- Ticona, Francisco (2001) Interview with the author, June 2001. (Owner of VillaNet *cabina*, Villa El Salvador)
- Torres, Carlos (2001) Interview with the author, June 2001. (Manager, Asociación Nacional de Cabinas de Internet)
- UNDP (1999) Human Development Report 1999 (Oxford: Oxford University Press)
- UNDP (2001) Human Development Report 2001 (Oxford: Oxford University Press)
- Venturo, Sandro (2000) Interview with the author, June 2001. (Project Manager, Red Científica Peruana)
- Viva Rio (n.d.) Information about Viva Favela project, see www.vivario.org.br (site visited 24/08/01)
- Wilson, Gordon & Heeks, Richard (2000) "Technology, Poverty and Development" in T. Allen & A. Thomas (eds.) Poverty and Development into the 21st Century (Open University/Oxford University Press)
- World Bank (1999) Poverty and Social Developments in Peru, 1994-1997 (Washington, D.C.: World Bank)
- Ypeij, Annelou (2000) Producing against Poverty: Female and male micro-entrepreneurs in Lima, Peru (Amsterdam: Amsterdam University Press)

Zavalú, John (2001) Interview with the author, June 2001. (Owner of Mega Virtual *cabina* in Villa El Salvador.)

USEFUL WEBSITES

Alternativa www.alter.org.pe

Amigos de Villa http://helios.unive.it/~sattin.amigos.htm

International Development Research Centre (PAN Networking project) www.idrc.ca/pan/

Oneworld Digital Divide campaign www.oneworld.org/campaigns/digitaldivide/

Red Científica Peruana www.rcp.net.pe

Somos@telecentros www.tele-centros.org

Inter-American Development Bank (Information Technology for Development department) www.iadb.org/ict4dev/index.cfm

Terra www.terra.com.pe

Viva Favela www.vivafavela.com.br

Viva Rio www.vivario.org.br