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LESS CYBER, MORE CAFÉ

Design Implications for Easing the Digital Divide with Locally Social Cyber Cafes

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Abstract: Shared models access to information and communication technologies (ICTs), e.g. telecenters and cyber cafes, have been considered as one means to reduce the digital divide. Cyber cafes in particular have proliferated in some locales yet not in others with apparently similar characteristics. This paper questions the prevailing emphasis on the “cyber” characteristics of access, e.g. computing and internet access as is currently known, and attempts to refocus the conversation by considering computing and access in the context of the “café”, e.g. as public life in the sense of Habermas. This analysis is based on extant literature and direct ethnographic research in several public places in six countries. We offer design perspectives based on a reflection of “third places” as inspiration for appropriate innovation in the provision of computing and communications.

Keywords: Cyber café, digital divide, third place, ICT

1 INTRODUCTION AND JUSTIFICATION

While it is estimated that about 10% of the planet has access to information and communication technologies (ICTs), the remaining 90% do not, creating what’s been commonly called the “digital divide”. Despite the unifying label, the digital divide is not a uniform population; rather, there are various gradations of both access and the capability to derive benefits from such access that cross a wide swath of economic and social aspects (Castells, 2001). It seems that “desperately poor people” (often in rural villages) exemplify the digital divide to the exclusion of others, for example: “The ‘digital divide’ is the subject of almost daily reports... But since when have desperately poor people had an ‘urgent need’ for a computer?” (Keniston,

2003). While there is certainly a large population of the desperately poor, there also appears to be a significant population not quite so poor, yet without ICT access – a population that might be considered the “world’s middle class” (Milanovic and Yitzhaki, 2001). The current paper considers possibilities for ICTs access within this latter context with the purpose of easing the digital divide.

Shared models of ICT access are often imagined when considering ICT access for the digital divide. In contrast to personal ownership of equipment and personal access to infrastructure, shared access models, e.g. telecenters, variously shift the physical, economic and social burdens of access from the individual to businesses, communities and governments (Pedrelli, 2001; Proenza et al., 2001). “Telecenter” is a general term applied to any establishment that provides public access to ICTs. However, as the term “digital divide” obscures difference within it, “telecenter” also obscures critical differences among the various forms of shared access. For example, at a high level, there appears to be a growing, albeit still rough, consensus around three categories of shared access: Telecenters, Cyber Cafes and Information Access Points (Colle and Yonggong, 2001).

Telecenters, per se, take as defining characteristics an emphasis on community service and development in addition to the provision of ICT access (Proenza, 2001; Gáspár, 2001). Globally, there are numerous attempts to establish telecenters as a means of erasing the digital divide, often but not always, in the most economically disadvantaged and geographically rural areas. Telecenters of this ilk operate mostly as not-for-profit organizations relying on various sources of funds, including governments, foundations, non-governmental organizations in addition to fees for use. Some examples that have met with varying levels of robustness include, Australia (Short, 2001), Brazil (Kyle, 2001), Egypt (Hashem, 2001), Hungary (Gáspár, 2001), India (Thamizoli and Balasubramanian, 2001) and South Africa (Benjamin, 2001).

Cyber cafes represent a second common model of shared access that may have relevance for easing the digital divide and which have, in recent years, expanded from (the almost mythical) first cyber café¹ to the uncounted thousands that are reputed to exist today (Ivala, 1999). A typical cyber café is composed of between five and twenty computers with varying levels of internet access, e.g. dial-up or broadband, in addition to providing other business services such as internet telephony, copying, faxing, etc. (Liff et al., 1998). They are particularly attractive in that they represent economic opportunity for the café owner/operator (Holmes, 2001).

¹ Reported to be in 1984: <http://www.theiac.org/>. It could be Electronic Café International: <http://www.ecafe.com/about.html>.

In addition to cyber cafes that support people temporarily disconnected from their home computers, e.g. London commuters, many cyber cafes serve local populations in developing nations. For example, they are popular in places like Ecuador and Peru. However, they are considerably less prevalent in Brazil or Mexico, where those that do exist seem more for tourists and professionals (cf., Kelly et al., 2001). Furthermore, for a variety of reasons, there are very few outside of urban environments in town or rural settings.

As currently conceived, it's not difficult to understand key reasons why cyber cafes have remained tethered to their urban, this-side-of-the-divide environs. Among these are available power and communications infrastructure, sufficient investment and maintenance capital, and sufficient expertise and access to maintain the equipment. Financing is also important. Unlike telecenters that rely on a variety of funding sources, cyber cafes are most often "for-profit" "fee for service" establishments and must sustain a profit. People using cyber cafes for access must therefore have sufficient discretionary funds and as a result cyber cafes are appear often to be not available to the "desperately poor".

Though cyber cafes can offer such access, they must meet their financial requirements. To meet these needs, cyber cafes have become remarkably similar in design following a tight range of business models (Ivala, 1999). This "one size fits all" requirement seems to artificially limit the potential with which cyber cafes can help reduce the digital divide – whether in the most disadvantaged rural settings or, as is more likely in the shorter term, to somewhat less disadvantaged urban settings.

2 RESEARCH PROBLEM AND OBJECTIVES

We explore how the concept of cyber cafes might expand their role of providing ICT access by de-emphasizing the "cyber" part and re-emphasizing and reenergizing the "café" part in locally valid ways. This paper attempts to expand the de facto description of cyber cafes by recasting their purpose from that of "access centre" to that of locally situated "third place", i.e., a public, social gathering place (Oldenburg, 1999; Laurier et al., 2001). Places of public congregation, such as bars, coffee shops, news stands, etc., already have the advantage of being attractive and frequented. Recasting what 'access' means in these contexts shifts not only the kinds of access that might be possible and perhaps increases the numbers of people who might gain access, but it can also stimulate the development of alternative technologies and business models that are possibly less capital intensive as well as being less expensive to operate over the long term.

3 RESEARCH SETTING, DESIGN AND METHODS

As part of the People and Practices Group at Intel Corporation, we use ethnographic techniques to gain insight into the lives of people, places and systems of interaction in various places around the world. The work in this paper falls under the auspices of a multi-year project intended specifically to identify potential applications, needs, desires, appropriate technologies and business models relevant to a large corporation for bridging the digital divide. A few years ago, we began the study of the current and potential role of public places and technology in the daily lives of people in various cities and towns around the world; we first focused on traditional “cafes” or coffee shops. More recently, we’ve been applying these same ethnographic techniques of interviewing, observation and participant observation in the study of cyber cafes in cities worldwide. Based on our work in both domains, we analyse existing patterns and synthesize potentially new patterns as a means of creating technology and business models relevant for crossing the digital divide. In this paper, we take our cues from both cyber cafes and traditional cafes in Brazil, Ecuador, Korea, Peru, Spain and the United States described in the following section.

3.1 Sites Examined

3.1.1 *Cabinas Publicas* (Peru)

The *cabinas publicas* of Peru, in addition to being ubiquitous, small, self-financed businesses (with approximately a one year return on capital), are marked in large part by the variety of services they offer, the variety of services used and the relative sophistication of their user population as a whole. A *cabina* typically has 10 to 20 machines, with relatively few exceeding 20. The largest we saw was about 40 and it was the largest anyone heard about. Services include internet phone service (“voice over IP”) to a wide range of countries, email, chat, pornography, business services and media downloading. Individual users also store personal content in password protected, shared and zipped folders and return to that particular *cabina* to access their material. In sum, they are a resource providing support for individuals’ entertainment, business and communication needs. They are also marked in that they fall largely within the “informal economy” of Peru, which offers advantages that enable them to exist.² As a result, they remain

² Informal economy refers to a wide range of characteristics all of which involve a dissociation (or lack of association) with certain relevant aspects of the extant national economy, e.g., taxes.

small, family owned businesses, disconnected from one another and mostly from the “formal” economy. They are typically housed in the minimum amount of necessary “available space” with little designed ambience. *Cabinas* were initiated by a group (*Red Científica de Peru*, RCP) with a goal to develop the country and install a network for internet access; they taught the general public how to set-up and run *cabinas* through free classes. There are an estimated 2500-3500 *cabinas* throughout Peru (population 27 million), with approximately half in Lima and the remainder distributed over other large cities (Holmes, 2001; Proenza, 2001).

3.1.2 *PC Baangs* (Korea)

Although Korean *PC Baangs* offer services similar to those of *cabinas*, the *PC Baangs* are situated differently. For one, it's not unreasonable for a *PC Baang* to have 50 to 100 PCs. For many users, they are already social destinations in and of themselves for couples and groups, and the trend seems to be more in that direction. Whereas many people use the *cabinas* as individuals, *PC Baangs* are at their best when groups of kids (e.g. school age) or teens or young adults out for the evening come in and play networked games with each other. It's akin to a computer “playground”. The spaces themselves are often purposefully designed to be evocative and to resonate with the clients, e.g. use of structure, lighting, colour, layout, etc., to connote a space ship or something similar. They are places one goes for diversion, after school, before they go out drinking or afterwards to sober up. They are, in many ways, an extension of the home. They are funded through use-fees, but may be owned by small business people or even by large corporations and they may be franchises in that they may have formal arrangements with game companies to reduce license fees, etc. They have far more and more formal associations with large business and government and are thus, explicitly a part of the formal economy. There are an estimated 26,000 through out Korea (population 47 million), in most all cities with the exception of very rural or remote (difficult to access) areas (Herz, 2002).

3.1.3 *Cafés de Internet* (Ecuador)

The situation in Ecuador is a little like Peru, albeit with relatively fewer services and with less and less up to date equipment. The *cafés de internet* in Ecuador are almost completely ad hoc arrangements of equipment, space and use; there was no RCP equivalent in Ecuador. As a result, they are smaller (3 to 10 machines) and less well equipped (various vintages and machines comprised of the working parts from several machines). They also appear to be used by a wide variety of people, including older people, but

more narrowly for email communication (and some chatting) and music downloads. At the time, there were about 50 of these small cyber cafes in Cuenca (population 350,000, with no guesses for the number throughout Ecuador, population 11 million).

3.1.4 Public Access (Rio de Janeiro, Brazil)

There were relatively few public access points in Rio de Janeiro (population, 12 million) that were at all obvious to us, and even fewer cyber cafes. Those we did see were incorporated into other gathering places, e.g. just off the lobby of a theatre or as parts of gaming centres (video game arcades) in upscale, popular malls. Access of this nature was primarily for gaming and for passing time while doing something else, for example, while you're in the mall with your parents, or waiting to be let into the cinema, that is, while being social. In Brazil, being inside is not valued or experienced in the same way as in many other places in the world. For example, cafes and juice bars are popular and prevalent, where people stand to chat and drink fresh fruit juices, coffee or other drinks. On the other hand, CDI (Centre for the Democratization of Information) has crossed into the digital divide, arranging with local neighbourhood associations to insert small computer classrooms making use of donated and used equipment. The result is extremely low capital costs. While they serve an education, training and civic function, most of these classrooms are not connected to the internet and are not generally publicly accessible other than during class times.

3.1.5 Bars (Spain)

Confusingly, the Spanish word “bar” does not mean what the English word “bar” means. There are numerous types of “bars” in Spain. In Barcelona alone, there are at least eight different types of bars, including “after hours” bars open from about 1am to 6 or 7am, themed and high-styled “design bars”, “yuppie bars” with long time regular business people, journalists, etc., tourist bars which are more like discos and “all day” bars, which are the staple of neighbourhood public life in Andalusia, Catalonia, the Basque Country, Asturias, Galicia and everywhere in between. Over the course of the day and into the night, the bar undergoes a transformation in its nature including what’s served, the amounts served, the atmosphere, the clientele and the types of social interaction. These bars are heavily integrated into the daily lives of people (including all children), who frequent them (though not necessarily the same one) two, three or more times a day – for example, in the morning for a “*café con leche*”, at midday for a “snack” or *tapa*” and in the evening for *cañas* or draft beers, the portions of the latter

determined by the barkeep. Other features make these bars very comfortable places, for example, the client is primarily responsible for maintaining his or her tab and there are rarely any queues in which one must wait one's turn. This type of bar is less of a destination, per se, and more of an extension of one's living room, "a third place" where people who know each other, including families, see each other on a daily basis. The types of interactions will also change depending not only on time of day, but with particular events, such as soccer (*fútbol*) on TV.

3.1.6 Coffee Time (USA)

Coffee Time is a locally owned coffee shop in Portland, Oregon, USA. It is, in many ways, unique, and one could argue, the antithesis of a "franchise" shop. For example, at Coffee Time, there is a large population of younger, "edgier" people, whose attire of black garb and chains might be somewhat off-putting to the same 65 year old retired housewife who visits the shop in Pella Iowa. On the other hand, the poetry readings on certain weekday nights attract a more "artsy" crowd. The furniture is also unique; old brown leather couches and other "used" furniture dominate the lounging rooms. The walls, lighting, flooring, layout, signage, and all the other accoutrements and products, e.g. vegetarian (in fact, 'vegan') chocolate chip cookies, also differ from the franchise shops. Moreover, the shop encourages people to spend time there in ways that gather no fee. Coffee Time keeps a stack of board games including chess (for which they solicit additional pieces from their customers) among other items like an internet terminal, some reading materials and a host of customer placed postings. Coffee Time also offers outdoor heating under the awning, something one might only expect in more upscale locales. Coffee Time, like other local shops we've studied, is, in many ways, co-constructed by the owner and the clientele in a sort of informal interaction, unlike the franchise shops which are corporately constructed and consciously replicated. Local shops, like Coffee Time, are more a place to be and less a place simply to retrieve a cup of coffee.

4 DISCUSSION

4.1 Third Places

Traditional cafes have long been recognized as "social spaces" for conversation and general conviviality within communities (Habermas, 1991). Traditional cafes offer far more than coffee and assorted drinks; they

also provide a place that permits the emergence of sociality. They offer a place where people can gather, talk, know each other, express community and “hang-out”.

Cyber cafes seem to emphasise the “cyber” in terms of “functionality”, “efficiency” and “effectiveness” even though they borrow the term “café”. One way to think differently about cyber cafes is to consider them fulfilling a role more akin to traditional cafes or, “third places” (Oldenburg, 1999), i.e. as a part of public life. Put another way, we consider the characteristics of traditional cafes and imagine maintaining and/or expanding these characteristics while providing ICT access. One outcome might be a different category of “cyber café” that better serves different populations. Another outcome could be various models for introducing cyber cafes in a town or village and evolving them appropriately.

One pattern worth mentioning here is that whereas the locally owned bars and cafes appear to demonstrate continuous adaptive response in conjunction with their clients, cyber cafes appear less malleable. For example, in Spain and Portland the sites seem to have adapted along a wider variety of “dimensions of daily life” insinuating themselves more deeply into the lives of their patrons – and vice versa – offering everything from games to vegan cookies, morning coffee and afternoon beer, a place to sit and talk, to watching *fútbol* on TV, only some of which actually requires the patron’s money. In contrast, the cyber cafes regardless of location appear to offer very similar capabilities, network gaming and internet access. While there are some variations, e.g. internet telephony in Peru, they are remarkably similar. It’s not necessarily bad; it’s just stifling.

Traditional cafes also appear to have perfected the art of adapting their shops to local conditions by offering not only their explicit products but by providing a space for the emergence of sociality, something they cannot “sell”, e.g. watching a sporting event on TV. Thus, at one level, they are the same – they all sell coffee (albeit some better than others) and they all offer small snacks or pastries, etc. However, at the level of actually creating and running the business, they are each quite different. And it’s important that they’re different because they each attract different clientele depending on the whole set of conditions and characteristics. It’s exactly these variations that seem less prevalent among cyber cafes. It’s exactly these variations among local, social establishments that are of prime relevance to a more differentiated incorporation and provision of ICT access.

4.2 Examples Emphasising “Café”

In Rio de Janeiro, Brazil, we noted that many people spend significant amounts of time out of doors rather than inside. There were few cyber cafes

of any sort, and with one exception in a mall near a wealthy area, publicly accessible internet connected computers were not being used – even in the midst of large numbers of people. However, juice bars and snack bars – which are exactly that, bars where people eat/drink standing up right off the sidewalk – were frequently occupied. The question of course is: What would a “juice bar offering ICT access” be like? That is, in what way can computing and internet technologies be introduced into this existing third place such that it enhances the “café-nature” of the juice bar, which establishing an element of “cyber”?

It certainly wouldn't be a room full of computers, one per person. Perhaps it might be a form of “local area broadcast” with one screen showing content of particular interest to the regular patrons of that juice bar. Or perhaps it might be small flat (but bright) touch screens attached to the bar with local newspapers or magazines that people can pick up, scan for an interesting publication and read an article or, in Brazil particularly, watch snippets of web cast TV news as it unfolds over the course of the day. Of course, these suggest different support technologies as well. For example, small screens on the bar counters might receive information wirelessly from a backroom “server” using the appropriate wireless protocol. Perhaps people coming in can also receive information to their own personal devices as well, e.g. to a personal digital assistant or to a cell phone.

For contrast, in Seoul, almost all gathering places were indoors, off the street. It was very common to enter the side door of a nondescript building, climb a narrow flight of stairs to a fourth floor coffee shop or *PC Baang*. In their early instantiations, they offered simply internet access but quickly became gaming centres in neighbourhoods in almost every city in Korea. In addition to the highest broadband penetration rates in the world (~60% of Korean households), there are an estimated 26,000 *PC Baangs* in Seoul alone (population 10 million). These cyber cafes have over time, increasingly becoming venues for groups of people to come and “hang out”. Many cyber café's offer conscious styling and atmosphere, e.g. “space age”, comfortable modern chairs and a variety of arrangements designed to permit face-to-face and verbal interaction simultaneously with game play.

Another *PC Baang* we visited had “love seats” in front of several computers for couples to sit together and play games, chat or read email. This same one had a movie viewing area as well. Their most popular times are when school lets out and evenings when groups of people come by. One *PC Baang*, which has recently seen business decline, reinforced this notion of cyber café as “venue” by declaring that the most successful *PC Baangs* were ones located in areas near other venues, such as singing rooms or bars, i.e. places where people go when they go “out”.

Thinking about the simple concept of a “love seat”, where couples can sit together, hints at different sorts of technological interventions. As a simple example, playing games that require two people with two separate simultaneous inputs to the computer; these were not available. Or perhaps, smaller screens with clever input devices on table tops such that a couple can sit more comfortably with a coffee and a dessert (popular in Seoul and Brazil) while engaging in a lightweight diversion. Alternately, kids in a small village might be better able to play a game together with multiple inputs and one larger screen. A few adults might gather together at various times in the day to learn about a new farming technique of particular interest to local towns or villages (the video for which was downloaded asynchronously overnight). Additionally, the screen might also serve special events, such as “movie night” or more generally as a mini-cinema at appropriate times. Or, we imagined a projected image of a crossword puzzle on the wall of a café in Portland, Oregon, with a few specially tailored input devices that would permit people to causally make a contribution to the puzzle without disrupting the social nature of the place. Of course, these sorts of usages suggest different instantiations of basic technologies, which is, of course, the point, to imagine how technologies have to be recombined, improved or even invented.

By shifting the conversation from “business centre” to “third place” we change the nature of what “access” might mean. Each of these examples, the “juice bar cyber café”, the “mini movie cyber café” and the “cross word cyber café”, variously incorporates computing and access to the internet in a way that might conform to local sensibilities. None of these sites requires 10 or 20 PCs, network connectivity, broadband or even synchronous connectivity (perhaps taking advantage of store and forward technologies or night time downloads). On the other hand, the foundation laid in each just as well might over time offer additional capabilities as appropriate.

4.3 Practical Considerations

In actual practice, there are business and technology issues to consider. Perhaps the critical business factors from the proprietor’s perspective are those of capital and operating costs, while out-of-pocket costs and associated benefits might be considered from the customer’s view. As we’ve noted previously, capital costs are typically covered in two ways. For telecenters, capital is often raised as “donations” from NGOs, foundations and governments and for cyber cafes as “private funds”, e.g. personal loans from family and friends. Operating costs in telecenters are often met through a variety of revenue sources, whereas in cyber cafes, customer use fees are the primary and often the only source of revenue. One possible advantage in

thinking about ICTs and “third places” is that an appropriate level of ICT inclusion might represent a relatively small proportion of capital and operating costs while producing a disproportionately high rate of return.

Of course, the opposite is also a possibility. It’s very difficult to assess the financial impact for either customers or proprietors without detailed knowledge of the specific case. In one case study, we were able to evaluate the finances of a typical *cabina publica*. One result of particular interest was the effect of internet telephony on the profitability of the *cabina*. The cost of an internet call was significantly less than the cost of a normal phone call from one’s home, making internet telephony a fairly popular service. From the proprietor’s perspective, the incremental capital requirement to add internet telephony to the already-existing *cabina* was small. Yet, the revenues extracted from telephony services were substantial in terms of incremental net income; the internet telephony service nearly doubled the profits of the *cabina*. As a stand-alone service, the internet telephony would not make sense from a return on capital perspective, but it made perfect sense as an “add-on” service to an existing asset base. While the bulk of the revenues in the *cabina* came from computer rentals for internet access, internet telephony made the difference between being a good overall business or not. This example clearly demonstrated the importance of adding relevant services and local content to the *cabina* business.

The argument in this paper is to consider incorporating access such as internet telephony in extant third-places, as an incremental or “add-on” service. The financial considerations are of course critically important. It is very difficult, however, to get a view on finances in a general way as one key element of third-places is their variability. Thus, financial considerations remain an open issue that must be resolved locally, not unlike the sort of access one might consider.

Inextricably bound with financial considerations, are technology considerations. On one level, it’s easy to suggest reducing the price of technology as a solution. Another possibility is appropriately adapting the technology to suit the environment.

Again, these issues also remain open and require further research. Yet, various ideas suggest themselves as potential directions. For example, building far more modular systems such that basic components can be swapped in or out as required without the need to change whole systems is one approach. For example, *cabinas publicas* have widely adopted internet telephony as a major portion of their offerings. Internet telephony serves a real need in Peru. Perhaps it’s also useful elsewhere. One might consider selling a system that offers only internet telephony, but which can also accommodate added functionality over time in a modular, building-block fashion.

A related approach would be to sell and build systems based on an initially diversified set of components, e.g. offering solar power, electrical power or hand-generated power, e.g. pedal power³. Street markets in some developing nations are already disassembling systems to salvage components for replacement in other systems, e.g. replacing cell phone screens if yours breaks by using an old screen from another phone.

In the *cabinas*, at any one time it is an individual using an individual computer as if it were, for that moment, personally owned. The “upgrade path” is to replace an old PC with a new one, or ten old PCs with ten new ones, which is burdensome. An alternative would be to offer technologies that rely on shared computing power, per se. For example, disassociating the processing from the storage, the monitors and keyboards can permit a different form of sharing, potentially reducing capital costs, while maintaining shared access.

Consider the “juice bar cyber café” example. There is presumably one source of compute power while there are various means of interaction, e.g. multiple displays on the counter. Over time, one might imagine evolving the cyber capabilities of the juice bar, an evolution that might well involve replacing parts of the system rather than the entire system (which is also harmonious with a notion of less waste). Upgrading the compute power, or upgrading the input and display devices could be independent events. An open question is how technologies can be designed more modularly to permit this form of mixing and matching of various parts to support a wider variety of applications that could be developed as localization intensifies, much akin to the localization of traditional cafes while better supporting sociality.

5 CONCLUSION

As currently conceived with the emphasis on “cyber”, cyber cafes have limited potential to further extend access to computing and the internet given their infrastructure, business and usage requirements. Shifting the emphasis from “cyber” to “café” opens a space of possibilities suggesting various technical and business innovations that better conform to realities and desires of people’s lives that have the possibility of extending the reach of information and communication technologies – even if in a limited extent. The current paper represents less a radical approach and more an evolutionary approach. More radical approaches, more research and more understanding are required to sensibly reach the deepest parts of the divide.

³ cf., Jhai Foundation IT Village Project: http://www.jhai.org/jhai_remoteIT.html

One key benefit of thinking about smaller interventions in extant third-places is that more narrowly defined applications, locally considered, appear to be more harmonious with other conditions of these businesses such as thinner margins, lower revenues, lower per customer revenues, variable infrastructure, etc., that might not apply to a cyber café right in the *Plaka* of Athens. This conception of ICT introduction seems to better permit the ongoing co-construction of third-places in which the patrons and the owner symbiotically (even if implicitly) evolve the establishment over time. For example, it appears that one reason for the diversity among traditional cafes around the world is that they have evolved slowly, depending on customer interests (politics, sports, lotteries, etc.), current technologies (TV, radio, video games, etc.) and owner capital. Because they are third-places in which the customers have a stake, a co-evolutionary process seems to ameliorate the risks involved with the owner's capital expenditure.

It is the owners who take the financial risk. And to do so with new technologies is to increase the risk for obvious reasons of costs, complexity and uncertain benefits. Franchises offer an advantage in this regard by seeking similar environments in which to establish their shops such that changes to one shop have a greater probability of being relevant to other shops. Local establishments do not have this advantage, and thus the risks must be lowered and business and technical considerations must be considered in addition to the actual benefits of the ICTs. Considering third-places as a possibility shifts the context of the conversation in a way that reconsiders the applicability of ICTs as they are currently instantiated

Obviously, such a shift in emphasis as outlined here is only one part of an overall solution space. More work is required from all points of view – business, technology and that of the customer. Yet even this simple tactic implies fairly severe departures from current cyber café technologies and business models. Daily conditions among the digitally disadvantaged are quite different from those among the digitally enabled; it only stands to reason that reducing the imbalance that is the digital divide while providing economic opportunity coupled with sustainability requires us to consider alternatives different from extant common practice.

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