

ICT for development and commerce: A case study of internet cafés in India **[Research in progress paper]**

Nimmi Rangaswamy (nimmir@microsoft.com)*
Microsoft Research labs, India
B-104 White House
Lake Side IIT Bombay
Powai
Mumbai 400076

Abstract

The paper, drawn from on-going studies of internet cafés in India, reports interesting localization of information and communication technology (ICT) offerings in shared public spaces. These are in some disjuncture with the ideology of digital inclusion striving to integrate hitherto excluded and 'information poor' communities. We find context specific and commercial localization of ICT services contributing to their immersion in underserved contexts, introducing technology as significant part of everyday commerce. If 'non-developmental spaces' using ICT are more open to entrepreneurial activities, multiple players, especially the government, could creatively engage with them to promote ICT interventions in everyday civilian life. We indicate some curious and interesting examples strictly belonging to the commercial realm nevertheless bearing the potential for expansion of ICT services.

Keywords:

ICT, Internet/cyber café, ICT for development, Localization,

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1. INTRODUCTION

The paper, culled out of research in progress, looks at a particular configuration of ICT's to provide critical accounts of developmental initiatives in India. We report from an ongoing ethnographic study of urban and peri-urban internet cafés and rural PC kiosks. We have covered, thus far, 12 villages in rural Western India hosting a PC kiosk and ten cafés distributed amongst the suburban Mumbai metropolis, the city of Surat and Alibag town, all in western India. Our initial findings are pointing towards interesting localization of ICT offerings in these public spaces and are, probably, in some disjuncture with the ideology of digital inclusion integrating hitherto excluded and 'information poor' communities.

At this stage in our study, we are exploring 3 related issues raising debates about disjunctions between information and communication technologies for 'development' and for 'commerce' as mutually exclusive social processes and ideologies. Firstly, ICT configurations in fairly mature urban IT ecologies display barriers to commercialization and immersion not far removed from their resource stressed rural counterparts. Secondly, context specific and commercial localization of IT services equally contribute to ICT immersions in hitherto underserved contexts. Thirdly, how multiple players, especially the government, can creatively engage with ICT driven commercial spaces to promote ICT interventions in everyday civilian life.

It seems pertinent to ask here, are ICT for development discourses coding the commercial and non-commercial as development and non-development? Is information also coded into what is good/superior or bad/inferior information? If 'non-informational spaces' using ICT are more open to creative entrepreneurial activities will these be termed ICT 'not' for development? Is ICT for development by definition, rendered non-commercial? Debates in terms of welfare economics posit the state as major player. How does the state tap into or engage with market impulses while driving development initiatives? Commercial spaces, especially where information technology is playing out, become important nodes for entrenching these technologies and extending state role in shaping these spaces.

2. FOREGROUNDING DEBATES

Information and communication technologies are viewed as heralding the onset of an information society in nations and communities historically excluded from the fruits of development and progress. ICT's are widely recognized for the contradictory twin roles they simultaneously play in society: the immense potential to meet development goals and to widen the gulf between information rich and poor communities overlapping with existing socio-economic divides. They also cover a broad range of meanings, approaches and practices from curing perennial poverty through capacity building to mushrooming back-end processing offices (BPO's) in urban sectors generating rapid employment. But, it is universally regarded as a 'good thing'. ICT for development is the new mantra for initiatives

to transform developing nations to superpowers or underdeveloped countries to clean and healthy ones¹.

India is witness to rapid IT driven socio-economic boom with its GDP growth reaching all time high². Indian urban landscapes are dotted with IT parks, global support centers and special economic zones. The government introduces pro-active policies to quicken the pace of economic upswing in the country. But this is but a portion of the overall scenario. Despite a booming economy, the majority of suburban, peri-urban and rural India is yet to experience the fruits of prosperity.

Seeking to gain momentum through India's mission of digital inclusion, many such ideologically driven processes (even those driven by government and private sector partnerships), find inconsistent adoption and sustainability in communities aspiring for entry into the larger information culture³. Nevertheless, consumption of ICT value-oriented services is growing, with 6.6 million mobile phones added in October 2006 in India⁴. In this backdrop of increasing Indians interfacing with market driven ICT, we argue that the notional preponderance of development in challenging digital exclusion, evade or turn way from social processes, not in alignment with presumed development goals, where ICT's find better routes of immersion.

To recollect a brief history of internet in India, the government introduced the first international telecom carrier in 1995. The Indian Government has been propelling towards "information age" and "convergence" by announcing enabling policies toward development and progress with an ultimate goal of "Internet for All"⁵. However, implementation of some of these policies have been beset with various operational, procedural, regulatory issues and supporting legal framework, which is inhibiting the reach and benefit of the Internet to masses in the country⁶. A current survey by the Internet and Mobile association of India, IAMAI, puts India's Internet User Base At 37 Million touching 54 Million By March 2008. The e-Technology group at Indian Market Research Bureau, IMRB, felt "The next round of growth

¹ Following the development of India's national strategies for ICT, the government made a concerted effort to bring low-cost connectivity and ICT enabled services to the 'rural masses' (Pohjola 2002). Along these lines, a public-private collaborative effort has launched the ambitious 'Mission 2007-Every village a knowledge centre' for achieving a knowledge revolution in India <http://www.mission2007.org/mission/> and <http://www.mssrf.org/>

² For a quick overview of India's economic mobility, <http://www.indianindustry.com/indian-economy/indian-economy-overview.html>

³ What is ignored is the actual process of development, its structural exclusions of populations, lack of committed resource supports, and personnel who eschew development to corner personal gain, in short, deeper questions of socio-political contexts aiding or thwarting the actualities of progress. Kaushik and Singh (2004) Pringle (2002) speak about specific case studies in India (Thompson 2004) (Licker 2001) discuss ideological underpinnings of ICT for D. Slater and Kwami (2005) report that new media practice in Ghana is significantly opposed, or unconnected, to ICT-driven poverty reduction logics through which they are understood by those in governance and policy. Kurien 2005, point to case studies from Kerala, relating to socio-political tensions in the implementation of ICT's for development and capacity building, particularly tensions faced by ICT entrepreneurs hoping to make business out of these initiatives.

⁴ http://www.iht.com/articles/ap/2006/11/12/business/AS_TEC_India_Mobile_Phones.php

⁵ The Times of India editorial, 'Unwired World: WiMax promises high-speed mobile data and telecom services', November 18, 2006 reported Chennai to be the first WiMax enabled city in India.

⁶ The Internet subscriber base grew very slowly from 0.01 million subscribers (1995) to 0.14 million (1998). The end of VSNL's monopoly in 1999 led to phenomenal surge in subscriber base growth from 0.28 million (1999) to 3 million (2001). However, from April 2001 onwards, growth rate started declining on all over India and reached 3.23 million (against a projected target of 4.5 million) in 2002 and 3.5 million in 2003. The declining was due to low PC penetration, high Internet access costs and steep PC prices, besides poor connectivity. Despite ongoing deregulation of India's telecommunications sector, its national teledensity is one of the lowest in the world, improving slowly from 0.06% (1990), 2.86 (2000), 3.58 (2001) and 5 (2003). The rural and urban teledensity were 0.93 and 10.16 (2001) and 1.49 and 15.16 (2003), respectively. Internet subscriber base in 2004 was 0.4%, in sharp contrast to Asian countries as Korea with 58, Malaysia with 11 and China with 2% ([Telecom Regulatory Authority of India, 2004](http://www.trai.gov.in/pressreleases/2004/040404.htm)).

will be driven by new and innovative applications such as blogs, P2P, video on demand and online gaming. While the old favorites such as email, chat and IM will drive first time users to the medium"⁷.

With PC penetration being low and the bulk of urban population living and working in make shift and non-formal economies, cafés are prime spaces that initiate first timers and bring technology into their everyday. It is no coincidence that similar issues hindering ICT deployment and immersion in rural India act as barriers in peri-urban and deep suburban regions. Power cuts are frequent and there is little by way of e-government services that co-opt civilians with ICT. It is evident doing small business with ICT's develop a certain public character dependent on larger policies, state initiatives and a techno-friendly climate unlikely to be critical for non-ICT start up businesses.

In India Cyber cafés and PC kiosks have allowed new forms of context-specific social networks to emerge. Studies from countries report specific and unconventional social formations around public configurations of ICT's. We noted a spurt of ICT activity around communicative functions in ethnographic findings from Ghana and Jamaica reporting different assemblages of media dependent on local needs for information flows. Existing networks are often built around maintaining kin relationships bound with patterns of economic migration (Burrell and Anderson, 2006 Burrell, 2006, Slater 2000). Local demographics played a critical role in the usage of public internet assemblages in London (Wakeford 2003). A study of cyber cafés in the city of Bangalore, India, speaks of active appropriation and shaping of shared ICT spaces by youth going beyond communication agendas (Nisbett 2006).

3. SHARED PUBLIC CYBER SPACES IN INDIAN SOCIAL ENVIRONMENTS

Our study of cyber cafés in urban cities and towns in India show alternate uses of café space, in low-middle class locales, some with poor housing conditions and infrastructural facilities⁸. The internet user base co-exist with high levels of mobile telephony, public consumption of cable/satellite TV, and the emerging FM radio audiences. This constellation of mixed media happens within a strictly commercial and entrepreneurial framework of very small businesses with little interest in promoting ICT for development, as we understand the term. Almost all Cafés operate under commercial business licenses no different form those required for running, say, a fast food joint. After 3 months of observations in 10 urban cafés we found three interesting activities a buzz: the chat room, stock trading and networked gaming. Each of these gain prominence in a specific social environment of a café.

Our study of rural PC kiosks amidst a resource stressed and mixed communicative ecology, show continuity with certain urban consumption patters. Rural India with 600,000 strong officially defined villages is a potpourri of farming villages and village like towns with varying degrees of urbanity and infrastructural amenities. By some estimates, there are as many as 150 rural PC-kiosk projects across India. Such projects could provide the first

⁷ http://www.iamai.in/section.php3?secid=16&press_id=1210&mon=9

⁸ Cyber cafés numbers are dynamic constellations with no authoritative figures available. The 2004 figures put it around 50, 000, Caslon Analytics (2004) cited in Haseloff, 2005. Since debates are formulated from early results we have yet to configure demographic and social profiles of users

computing experience for as many as 700 million people in India (Toyama 2004). A village is characterized by its farming communities but is occupationally diverse and contains a mixed communicative ecology with higher mobile coverage than landline, huge national /satellite TV viewership and the local cinema theatre. India has a robust rural ICT policy and action and has initiated multitudinal projects to augur development initiatives through ICT. Impact assessments by various government and non-governmental agencies, are unclear about the degrees of progress in receiving communities.

The 12 villages under our purview have a fairly uniform story to tell with regard to ICT for development and ICT for commerce. While Internet café and kiosk entrepreneurs have mixed interests in developing more expansive potentials of ICT driven media, the government and NGOs in developing nations are focused on ICTD as mantra for progress and rhetoric for forums. The inconsistent provision of communication infrastructure including ICT hardware and maintenance without attention to the institutional and practical contexts of use of technology has resulted in skewed ICTD deployments showing little progress, empowerment or ICT literacy among the populace hoping for a take-off towards technology enabled social prowess. In their two year study of 300 rural telecentres across India, Kiri and Menon (2006) find that usage of development-oriented services, such as e-agriculture is much lower, while functioning PC kiosks are more like communication centers of the PCO/STD/ISD kind. One of our subject kiosks, a beneficiary of combined developmental efforts by the state/NGO/corporate found the experience of running an internet kiosk in his village the most frustrating experience and stopped on-line activities. However, the kiosk operator, who runs a small Photo studio in his village, found a new mode of employing his PC! He supplies digitally made over pictures in Photoshop to many clients in his village and surrounding villages. He says "... my PC has finally come to use and I make good profits selling a single post card size print for 20 cents each..." In this little village, commerce has somewhat overtaken development efforts to diffuse digital technology!

4. REPORTS FROM THE FIELD

4.1 Barriers despite Boom

Our initial findings in Mumbai suburban and deep-suburban cafés report a kind of 10 year local history of the internet. Café entrepreneurs began running these as small business, enthused by the on-set of IT driven economic boom in India. Some switched family professions, trained themselves in IT networking and hardware and began shop in earnest. Amongst our case studies, all 10 urban and 10 out of the 12 Rural entrepreneurs had an IT degree or associate diploma, one of them learnt hands-on. All are comfortable handling and networking multiple PC's, hardware trouble shooting. The initial boom driving the mushrooming of urban cafés has waned. Urban café operators report falling client and browsing rates, while rural kiosk operators find lack of power and infrastructural crunches having debilitating effects on ICT dispersion and services.

An important concern expressed by café owners is the improbability of managing a multi-PC café with little knowledge of computing software and networking. They simply cannot afford maintenance! This seems to be a recurring theme in the type of person/s who does business with IT. Here, skill, like doing business with any craft, is a major resource and, in this case, not bound with family or social tradition that is passed on intra-generationally but modern,

secular and attained through expensive packaged fees. Cyber café's primary investments in computers and hardware not with standing, standing costs are the killer. It becomes indispensable that the owner is a hardware/networking/ trouble shooting specialist! Bhavesh, one of our subjects running a suburban Mumbai café, recalled his small profits, "*I am an IT engineer. ... I don't have to depend on any engineer to set up the all the things I have here. we have to adjust the capital and costs as well. There are internet charges. There are electricity charges. The telephone bill..., and then you will be able to decide whether you've had a profit. ... It is impossible to pay for professional help. We are the help.....*". A crucial issue that comes to light here is ICT in small businesses promote the same kind of barriers excluding the information poor populace. ICT related entrepreneurship, no more than a cyber café, demands technology related skills. The specificities of acquiring ICT related skills initiate a break from traditional intra-familial passing of skills, often requiring formal training with an acquired aptitude for technology coupled with expensive tutoring fee. The economics around acquiring IT skills excludes certain social-economic groups in developing nations like India augmenting the digital exclusion debate.

Rural regions face acute infrastructural pressures to maintain on-line services. Kiosk operators experience severe constraints in ways their ICT ventures depend on extraneous players and agencies. The internet becomes a very expensive and frustrating experience to both owners and clients of kiosks when hardware break down coupled with huge connectivity and trouble shooting issues collide with periodic power cuts. In and around Pabal district in Western India, our focus of study, 34 internet kiosks were begun in as many villages in 2001, most of them making use of government subsidy in the drive to entrench internet technologies. By the time of our study, in 2005, there are 12 functioning kiosks, 7 of them from the original 34 and 5 new. Kiosks ceased operations for various reasons: Some people who wanted PC's at subsidized rates had posed as future operators and housed computers. Others sighted connectivity/hard ware issues and poor follow ups from donor agencies as promised. Many expressed serious doubts about flagging off a new and expensive technology on a population with out serious technical and market support structures (Rangaswamy, 2006).

4.2 Commerce despite Barriers

In this section, we highlight commercial transactions in public and shared cyber spaces that take specific, context-related forms.

Multiple players have staked claims to shape the course of kiosk development in the country. Corporates players like n-logue, Drishtee, and ITC's e-chaupal program have drawn on for-profit business models for long term sustainability. Meanwhile, several non-profits in this space argue for large government funded infrastructural investments in the diverse communication ecologies of 600,000 villages in India⁹. Based on our studies we argue that 'imagination around ICT needs to go beyond its singular role as a developmental tool, to address a broader spectrum of needs in the complex socio-cultural world of rural communities' (Rangaswamy 2006). ICT's as commercial tools are bringing profits and hope of sustainability. We are seeing PC services supporting demand for image/visual services like digital photography and videography rather than provide conventional 'information' services.

⁹ Kumar 2004, Dhawan 2004, Jhunjhunwala 2000, 2001

Kiosk operators have shown immense drive in sniffing out commercial possibilities that were though non existent. As an example, the operator in Kendur village, Popu 12,000, has attached the printer/Xerox/scanning suite to his PC with no on-line activity bringing money. But his main profits come from digital mixing. He uses pirated Photoshop and has a good consistent clientele for these pictures. He charges 20 Cents for a post card size digitally mixed photo. *“My clients love the mixing work. They are now giving me ideas to change the look and feel of their photos...”* Another KO in the urbanizing village of Uruli Kanchan, Popu 50,000, said *“There are 9 hour power cuts here... what kind of on-line services I can offer... I have a flourishing computer training institute.... I use a generator during power cuts”*.

Our on-going research in urban Western Indian regions, cyber cafés reported untenability of stand alone business. Initial enthusiasm and excitement around internet cafés have waned to accommodate these as secondary business. At least 6 out of the 10 cafés we looked at ran a small PC assemblage and maintenance attached to café business, while 2 had mobile retail services. These businessmen viewed the twin engagements as complimentary bringing steady clients and easy propaganda for selling PC's via the internet clientele. Vinod, who runs a suburban Mumbai café, assembles PC's for a small neighbourhood market said, *“Definitely it is unviable.... Only a cyber café is not a revenue earner. You have to have another business in place. If you want to earn good money, difficult. Yes, you can break even. It will over come cost. But just a cyber café is not a good revenue earner. You have to have some other business in parallel. For example, in my case hardware would bring me profit and café earnings would manage the expenses...”*. Bhavesh added *“Café is more like a supplementary business apart from my hardware business and would be an additional source of revenue. In the sales phase I can do hardware selling, sales, plus café ...”* Vinod articulates reasons, *“..... People are becoming more internet savvy. Schools introduce computers at a very early grade.... They all want a home PC. In a city like Mumbai where connectivity is good and broad band rates are crashing cyber cafés are loosing out. I switched to assembling PC's and that is doing better business. I sold 50 the last year... and my browsing rates have come down by 30 % ...”*

There is a second example of internet cafés transforming to residuary business. A café in south Mumbai, close to the stock exchange hub, is run by Pankaj, another IT engineer who opened the café to trade stocks *“.... Our prime business is trading with the National Stock Exchange and the Bombay Stock Exchange (NSC, BSE). And the cyber café is actually part time business.it is not just the cyber café that we operate here... the 4-5 PC's are idle after 4 PM, because the market is open for trading up to the time,... so to utilize the PC's we started the cyber café. ...This is a market place. In this locality you won't find any cyber café. At least around 5 to 10 meters. So we expect income, though it's just a month old café...”*

A third and prominent scenario is the cyber café cum gaming centre making business from individual or networked PC gaming. Radhe, who manages and owns an internet café in a Mumbai suburban slum speaks about his business maneuvers *“...., I started a communication centre, PCO/STD/ISD and thought of beginning internet. We got 5 PC's. Not much came by way of income from internet. We still made money only from telephony, especially long-distance....The space opposite our house is occupied by a coin operated gaming parlor with a huge rush for games from local children and youth. I thought of the potential for LAN based games. Now we have lots of children and youth coming to play games. This is a lower middle class neighbourhood with the University situated close by and we keep charges low for both gaming and internet. We are finding clients only for games...The odd client comes for internet...”*

Lastly, and curiously, the internet, more than catering to purposive clients for browsing, searching, mailing, has spawned a growing 'chat room' user base, particularly in suburban Mumbai. It is still too early in our research to delineate the social character of the chat room interactive space and its user protagonists but early results are generating interesting social profiles of users¹⁰. Thus far, the users are predominantly male, 18-22, showing habitual chatting with 'new on-line friends' and tending towards enacting/performing an alternate, imagined 'on-line personality'. Pankaj, the café owner, comments on why chat rooms differ from normal face to face friendships "...*You can't call any one or just talk to a stranger on the road. But in a chat room you can ask for 'arbitrary introductions' and if any one is interested then he/she will reply. But the problem with personal interaction is that there is always that fear of it back firing. And in personal interaction what happens is that you can see the other person and vice versa, but here you can describe yourself at first to be Brad Pitt and then the reality could be that you are Danny Di Vito... but by then you are already friends*".

Here is a conversation we had with Sagar, a frequent chat room visitor, living in a deep-suburb of Mumbai. He had something to say about 'taking' identities on-line,

"Interviewer- Ok. You are telling me that through chats like this it is easier to approach boys or girls because we don't know the person and he/she is prone to giving false ID's.

Sagar - Yes it is easy to do so..... It's not real.

I - Then what is the use if the ID is not real?

S - You cannot depend on it ever... That you'll find someone true to what he projects. ...because one friend had told me that he himself has made an ID with a girl's name and uses it to chat up with boys just for 'time pass' (to kill time).

I - What are you saying?

S - Yes he stays just here, in this neighbourhood. Though I will not tell you his name"

5. CONCLUDING REMARKS

Contextual adoption of ICT's is perceived to be somewhat off-beat seen through a 'development' lens. These are real adoptions in the face of inconsistent and irregular infrastructural supports. What lessons do they have for those of us alert to IT diffusion in varied social environments? Where ICT's are engaged in everyday life through small businesses cropping around its usage, a good example being the independent cyber cafés, what can government initiatives do to augment these further? Can commercial offerings around ICT's be given special status through special licenses or promotional regulation to aid business prepositions. This way the government ensures pro-active engagements with market impulses converting these to viable spaces both for commerce and diffusion of technology.

These are early inferences and articulations in the hope of making fuller and robust recommendations based on in-coming data and reflections from on-going field work.

¹⁰ The Times of India, November 19, 2006 (Sunday supplement) reports social networking sites going beyond the usual dating/business networking to giving voices to otherwise suppressed issues, and the 'young and restless', getting confident about their sexual profiles.

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