



Diffusion and Adoption of an E-Society: The Myths and Politics of ICT for the Poor in India

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Introduction

The label “ICT for the poor” has been widely used in India whenever ICT moves out of urban settings. There have been many debates on the “digital divide” and reluctance on the part of the masses to adopt the “remarkable changes” being brought out by the ICT boom. In the last 15 years, many initiatives have been undertaken in the form of “information kiosks” to diffuse ICT on the pretext of making the poor e-literate and build an e-society ultimately. Most of these projects have been funded by international multilateral and bilateral organizations and have also got awarded by various reputed international and national bodies for “reaching out” to the masses. It has been observed that most of these projects start with lots of fanfare promising a “leap frogging” to an information society, but they

Hamelink’s (1997) definition of ICTs: “Information and Communication Technologies (ICTs) encompass all those technologies that enable the handling of information and facilitate different forms of communication among human actors, between human beings and electronic systems, and among electronic systems” (Hamelink 1997: 3). This functional definition of ICTs includes both the new (i.e., Internet, e-mail) and traditional (i.e., community radio, TV) forms of ICT into its definition.

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falter somewhere down the line for various reasons. Though, masses approach the kiosks for land records, birth or death certificate, or any document that needs to be obtained from the Government. As a result of which, the information kiosks, after a while, are no more used by the masses, because their “temporary need” for an e-service has been fulfilled. Ultimately, all these information kiosks which have been put up by the Government, nongovernment organizations, and other philanthropic bodies end up as training centers on software/hardware for the local village youth at a price. Later on, the kiosk sustainability is solely based on the revenue that is generated by the e-courses that it offers and on the other allied services like printouts, serving as a public phone booth or may be as a cool drink center. This paper attempts to understand whether ICT is a boon or bane for India. It also tries to understand how the poor is defined by the information kiosks, or are they being only catered to a particular class of people who have proximity to the kiosk operator and how comfortable they are in utilizing the services of the kiosk. It also argues that in the pretext of creating an “information society,” the state has somewhere missed out on other needs of the poor, which are required for a holistic development of the society and an e-society ultimately. This article aims to understand if the information and communications technologies (ICTs) really empower poor communities and does it actually bring in the change that is anticipated of it. This article investigates this question, focusing on the role of information and communications technologies in diffusion and adoption of e-society in India through the ICT for the poor programs in the last few decades. The framework attempts to contrast with the global discourse around the “digital divide” and the holistic human development of the poor brought in by the ICT revolution.

The advocates of ICTs (World Bank 2000; UNDP 2001; Pohjola 2002; Braga 1998) take an optimistic view and highlight the positive effects ICTs to create new economic, social, and political order for developing countries and especially for the poor, whereas the critics take a pessimistic view and claim that ICTs due to existing socioeconomic inequalities and structural factors will only favor the privileged segments within the society and not reach the economically and socially disadvantaged, thus, leading to a further widening of the gap. The impact of ICTs on poor communities cannot be understood without first understanding the role information and knowledge play for development. In the ICT *for* development debate, the emphasis is placed on providing access to ICTs to the poor before analyzing the value information and knowledge exchanges play for development at the local level (Black 1999; Mansell 1999; Norris 2001). Digital divide is actually has more to do than the adoption of technology. It is more of a social divide, an economic divide, a cultural divide, a political divide, and of course a “technological divide.” Technological gap can always be bridged easily because it is market driven. The technological companies will jump at any given opportunity to intervene in the ICT market in the developing countries. However, hypothesizing on the fact that access to ICTs, computers, and Internet will lead to sustainable social development is far from being the answer. Gumucio Dagron (2003) critically approaches the development paradigms which developing countries have gone through around the world. He clearly states that technology alone is not sufficient, but states that information and

knowledge are also important to help the rural population to improve their living conditions. A number of development organizations around the world have begun to understand that information and communication are not the same thing. Information alone does not generate changes, whereas communication – which implies participation, sharing of knowledge in a horizontal way, and respect for diversity and culture – is key to social change. Unfortunately, too many development programs today are still basing their approach on the diffusion of innovations theories of the 1960s, often mocking participatory approaches, but seldom really involving communities in the decision-making process, because it clashes with institutional agendas and the “annual report” syndrome.

The very first broad category of development’s primary objective is to better the lives of the poor. The Millennium Development Goals (United Nations 2009) strongly focuses on targets to end poverty and hunger and to improve health and education for the poor. ICT is seen as a key prerequisite to improved healthcare delivery and the better assessment of development programs (Braa et al. 2004). Telecenters have been widely applied with the aim of bridging the digital divide for the poor (Reilly and Gómez 2001), providing them with access to information and better freedom of choice. Digital divide is not solely a matter of technology but also of the social, political, institutional and cultural contexts that shape people’s access and use of ICTs (Warschauer 2003).

ICT for the Poor Initiatives in India and Learnings: Understanding the Myths and Politics

India from the past few decades has become a test-bed for innovations in information and communications technology (ICT), serving the rural people through village information center (VICs) or kiosks. Various reasons explain the emergence of VIC or kiosk. The most obvious reason may be rural area has remained undeveloped in terms of basic infrastructure and basic facility. Another reason is providing a bunch of services through a kiosk is seen as a very easy process. Rural India is the largest underserved area for banking, microfinance, e-commerce, insurance, medical services, and e-governance service. Therefore, a kiosk can work as a bridge between the outer world and a village. Rural kiosks are one manifestation of various attempts to apply information and communications technology for socio-economic development. In many cases, a kiosk can be thought of as Internet cafes for rural villages, with one or more connected PCs available for shared use by village residents. They differ greatly from urban Internet cafes, however, in that the operational challenges and user needs of remote rural villages are appreciably different from that of cities. Rural kiosks typically offer a broad range of services and applications specialized for rural areas. Kiosks are initiated by various kiosk project agencies, which identify one or more people per rural village to act as a kiosk operator. In many cases, the kiosk operator is also the kiosk owner, in which case the agency takes on a franchise model, with operators as franchisees or rural entrepreneurs. By some estimates, there are more than 150 rural kiosk projects across

India, some of which already have, or are planning, thousands of installments (According to I4D Magazine, 2005). Most of these projects were started within the last 5 years. Reflecting the nation's diversity, these initiatives differ in goals, models, operating paradigms, and geographic distribution. Every sector is involved – large enterprise, entrepreneurs, government, and NGOs – with motives ranging from turning a commercial profit to driving socioeconomic growth to streamlining government bureaucracy. Early evidence indicates that rural kiosks can help villagers improve their economic standard of living by expanding livelihood options and empowering them with information, tools, goods, and services (such as education and healthcare). The true challenge is in finding ways to deliver this benefit broadly and consistently while making kiosk projects economically sustainable in the long term. The experiences of these noncommercial projects suggest that the information needs of a community should be thoroughly assessed before the launch of a project. It suggests finding out motivated and skilled grassroots intermediaries as a necessary condition for any project to succeed in bringing e-government to rural communities. Lack of awareness among the community is a major learning from the ICT for the poor initiatives in India. Either the people are completely unaware of the kiosk in their village, or they would not know about the services it offers. Many of the kiosks were put up in the homes of the operators, thus, making it difficult for the people to access it. The information center operator needs to understand the basic technology, such as how to navigate the Internet or to maximize the use of the available tools, and marketing. In most of the kiosks, the kiosk operator does have the details of the services offered. And they are lacking in basic operation of the kiosk. Information and communications technology (ICT) can reduce poverty by improving poor people's access to education, health, government, and financial services. ICT can also help small farmers and artisans by connecting them to markets. It is clear that in the rural area, realization of this potential is not guaranteed. Low-cost access to information infrastructure is a necessary prerequisite for the successful use of ICT by the poor, but it is not sufficient. The implementation of ICT projects needs to be performed by organizations and individuals who have the appropriate incentives to work with marginalized groups. These intermediaries are best suited to promote local ownership and poor people's participation. People also continuously face the languages barriers while using the internet as it is predominantly in English. Though, off late other language interface is developing but it's far from achieving the desired impact because they lack the local language products. It was also observed that many people also lacked the motivation to use information over the internet.

Information communication technology is to bridge the digital divide (i.e., disparity between digital have and have-nots according to their geographical location or demographical groups) and aid economic development by ensuring equitable access to up-to-date communication technologies. Information and communications technologies played a significant role in promoting social and economic development that includes improvement of individual livelihoods, community prosperity, and the achievement of national development goals related to the UN Millennium Development Goals (David et al. 2005). National ICT strategies and the programs of

international donors are incorporating ICT components on this basis, with specific objectives in reaching poor rural and semi-urban as well as urban communities. The earliest of the focus by India was on the use of IT (not ICT) in the mid-1950s to late 1990s. It was predominantly used in the government and private sector organization. The Millennium Development Goals coupled with the rapid rise and spread of Internet in the late 1990s to late 2000s led to a rapid increase in investments in ICT infrastructure and projects in developing countries. The telecenter was used to bring information on development issues such as health, education, and agricultural extension into poor communities. Later, telecenters were also used to deliver government services. In the early 2000, the shift toward mobile phones and SMS came into vogue where there was less concern with e-readiness and more interest in the impact of ICTs on development. Additionally, the focus on the poor as producers and innovators with ICTs (as opposed to being consumers of ICT-based information) was more prevalent. The earlier approaches on ICT marginalized them, allowing a supply-driven focus, and ICT brought them into the core and operationalized by creating a demand-driven focus. The previous initiatives on ICT viewed the poor at the “bottom of the pyramid” concept and characterized them largely as passive consumers, whereas ICT4D viewed the poor as active producers and active innovators. Access to ICTs in the developing world has been framed through the concepts of digital divide and use/non-use. Market liberalization and competition as well as various regulatory and technical solutions are believed to be useful in closing the digital divide and ensuring the universal access to ICTs. The general perception is that people who have access to ICT will benefit from it and those who don't would not. Benefits include boundless information sharing, connectivity, and participation in the global economy. The use of mobile phones shows some positive effects in improving access to information and services. The ITC E-Choupal was an important initiative that aimed to provide computers and Internet access in rural areas across several agricultural regions of the country, where the farmers can directly negotiate the sale of their produce with ITC Limited. Online access enabled farmers to obtain information on mandi (market) prices, and good farming practices, and to place orders for agricultural inputs like seeds and fertilizers. This helped farmers improve the quality of their products and helps in obtaining a better price. ITC kiosk with Internet access run by a sanchalak – a trained farmer. The computer is housed in the sanchalak's house and is linked to the Internet via phone lines or by a VSAT connection. Each installation serves an average of 600 farmers in the surrounding ten villages within about a 5 km radius. The sanchalak bears some operating cost but in return earns a service fee for the e-transactions done through his e-Choupal. The warehouse hub is managed by the same traditional middlemen, now called samyojaks, but with no exploitative power due to the reorganization. These middlemen make up for the lack of infrastructure and fulfill critical jobs like cash disbursement, quantity aggregation, and transportation. Since the introduction of e-Choupal services, farmers have seen a rise in their income levels because of a rise in yields, improvement in quality of output, and a fall in transaction costs. Even small farmers have gained from the initiative. Farmers get real-time information despite their physical distance from the mandis. The system saves procurement

costs for ITC. The farmers do not pay for the information and knowledge they get from e-Choupals; the principle is to inform, empower, and compete. market place for spot transactions and support services to futures exchange. There are 6100 e-Choupals in operation in 40,000 villages in 10 states, affecting around 4 million farmers. Gyandoot which means “purveyor of knowledge” in Hindi was a government-to-citizen, intranet-based service portal, implemented in the Dhar district of the state of Madhya Pradesh, India, in January 2000. The project was designed to extend the benefits of information technology to people in rural areas by directly linking the government and villagers through information kiosks. The kiosks provided access to a variety of government services, such as registration of complaints and submission of applications for the issuance of certificates and loans. Data on prices of agricultural crops in different markets are also available. Gyandoot pioneered the idea of rural telecenters in India. The project concept has been replicated by other information and communication technologies (ICT) development initiatives in India. Gyandoot was considered to be very successful in the early years of its implementation, and the project was awarded the Stockholm challenge information technology (IT) award in 2000 for public service and democracy. However, subsequent evaluations have reported diminishing levels of activity, placing in question on the long-term viability of the project. ICT for development has attempted many initiatives in different parts of India. This was an infiltration with or without the knowledge and consent of the people related. While some proved to be a success, others did not. This gap is yet to be studied in detail in the field of this venture.

Conclusion

ICTs under certain conditions can significantly enhance the human and social capabilities of the poor, thus empowering them at the individual and collective level. At the core of this empowerment process stands the notion that ICTs can enhance peoples’ control over their own lives. Similarly, to literacy, newly acquired “informational capabilities” can act as an agent for change for individuals and communities enhancing their abilities to engage with the formal institutions in the economic, political, social, and cultural spheres of their life. In this context, the issue of whether ICTs are channeling resources away from the real priorities and needs of poor communities seems to be misguided. Instead this question should be rephrased and address the issue of how ICTs could be used to meet the “basic needs” of the poor. This however will require a shift in focus of ICT interventions to address such challenges as the fight against HIV and AIDS, helping to avoid famines and their support in the mediation of conflicts. At the same time, the case studies have demonstrated that due to the existing “hype” around the potential benefits of ICTs, the high expectations of poor communities cannot be met. The experience shows that ICTs are only able to address certain aspects of the development challenges facing poor people and that in fact they are not able to change the existing structural, social, political, and economic inequality. For instance, while ICTs can act as an effective tool in improving the access of small-scale farmers to market price

information, they are not able to address the underlying structural market inequalities between small-scale farmers and agrobusinesses. Furthermore, the paper has illustrated that there is not a direct and causal relationship between ICT and poverty reduction. This relationship is much more complex and indirect in nature, whereby the issue of its impact on the livelihoods of the poor depends to a large extent on the dynamic and iterative process between people and technology within a specific local, cultural, and sociopolitical context. Frequently, the most immediate and direct effect of ICT programs seems to be the psychological empowerment of poor people, whereby newly acquired ICT skills provide poor people with a sense of achievement and pride, thus strengthening their self-esteem. A key recommendation of the paper is that the human development of people, rather than technology itself, should be the center of the design and evaluation of ICT programs. As has been shown, the important advantage of using the “capability approach” as the basis for the evaluation of ICT programs is its emphasis on the ability of ICTs to improve the daily livelihoods of poor communities, in contrast to more conventional approaches which overemphasize the significance of technology itself for social change. Furthermore, evaluations of the impact of ICT programs should focus on an analysis from the vantage point of the poor, rather than from the perspective of outside donors. In addition, the analysis provides the following concrete recommendations on the manner in which ICTs programs should be designed in order to be most effective on facilitating the empowerment of marginalized groups.

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