Profiting from empowerment? Investigating dissemination avenues for educational technology content within an emerging market solutions project

Payal Arora Columbia University, USA

ABSTRACT

The Stills in Sync (SIS) project is a joint initiative of the non-profit organization PlanetRead and the global information and communication technology (ICT) company Hewlett Packard (HP). The SIS project entails creating a multi-media product designed to enhance literacy in rural India through the revival of regional folksongs on relevant social issues. This product utilizes the Same Language Subtitling (SLS) feature that won the World Bank Development Marketplace Award in 2002 and the Tech Laureate in education honor from the Technology Museum of Innovation (San Jose) in 2003. This paper explores the dissemination avenues of the SLS folksongs product and its effects within the Inclusive Community (i-community) of HP in Kuppam, India. This community has functioned as a social and economic laboratory in which HP tested new technologies. Analyzing this test environment makes apparent the dichotomy between corporate responsibility and community development. Keeping the balance between profitable goals of the ICT business and development goals towards sustainable social and economic reforms has been illustrated by the survey results in this paper.

Keywords: inclusive community, literacy, information and communication technology, Stills in Sync, Same Language Subtitling

THE INCLUSIVE COMMUNITY MODEL

"The company believes i-communities will lead to the creation of significant new markets that will drive growth in revenue and profit" (World Business Council for Sustainable Development, 2005, p 1).

The Bottom of the Pyramid (BOP) idea conceived by the management scientist Prahalad (2004) has caught the global attention of managers in the private and public sector alike. This BOP paradigm combines the eradication of poverty with profitable business, and as Prahalad (2004) argues, it presents a change in the global awareness for creative entrepreneurs and value conscious consumers alike. Bill Gates, the chairman and chief software architect of Microsoft called it the "blue print for fighting poverty" (Economist, 2004). The former United States secretary of state Madeleine Albright found that with the introduction of the BOP concept, the search for fresh thinking on emerging market solutions had ended (Economist, 2004). The Inclusive Community project of Hewlett Packard (HP) seems to be inspired by this new model. In 2001, Chandrababu Naidu, the former Chief Minister of Andhra Pradesh, India, invited HP to support the social and economic development plans in Kuppam using information and communication technology (ICT). Kuppam was meant to serve as a laboratory for ICT dissemination within rural areas to be scaled nationwide. This was intended to address the critical challenge of mitigating the digital divide that has become central to current national and international development policy and practice

Hewlett-Packard in collaboration with the former government of Andhra Pradesh, embarked on founding the inclusive community³ programme in Kuppam in 2002. This HP initiative was part of the company's' effort at creating ICT solutions within emerging markets in lieu of creating a new consumer base. This involved the strategic deployment of technologies to engender a sustainable and replicable model for socio-economic growth in rural Kuppam. It embraced the revenue-based model where the poor are viewed as the new consumer base and where profit and social service are aligned towards a common goal of community development. Communication Information Centers (CICs), tele-medicine portals, and touch screen information kiosks are some of the inventive means that were meant to facilitate this process. For example, the CICs were designed as information portals to provide access to information on women's health, HIV/AIDs, employment opportunities, crop prices and the like. This in turn was expected to generate grassroots momentum and mobility, particularly amongst the marginalized groups. In fact, all these initiatives shared the goal of stimulating change through access to local, relevant and contextual information for the community. To run this pilot initiative, HP collaborated with numerous partners at the local, national and international level, non-profit and the private sector alike. One such partner was PlanetRead, the acting non profit for localized content development.

WHAT IS STILLS IN SYNC

This initiative entails the usage of the Same Language Subtitling (SLS) feature that won the World bank Development Marketplace award in 2002 and the 'Tech Laureate' honor from the Technology Museum of Innovation (San Jose) in 2003. It comprises of an audio-visual karaoke experience combining folk song audio files, still images and SLS in a multi-media format. Language switching options have been provided to make the lyrics readable in Telugu, English, and possibly Hindi (depending on user need). The villagers can view highlighted lyrics on the screen, sing along with the songs and download transcribed lyrics. Through the sponsorship of HP, PlanetRead created an Internet/CD-based jukebox of SLS folksongs songs using local folksongs with social awareness themes such as child labor, education, farmers plight, women's empowerment, dowry, HIV-AIDS and caste segregation. Through surveys on folksong preferences and fieldwork within the community, the most popular folksongs were chosen to serve these needs. By using photographic stills of the local village environment, and combining it with folksong audio files and multiple language subtitles, this product is designed for social and cultural empowerment.

THE KUPPAM COMMUNITY

Located at the confluence of Karnataka, Tamil Nadu and Andhra Pradesh, Kuppam is strategically if not symbolically stationed amidst the three states. The constituency of former Chief Minister Chandrababu Naidu, Kuppam had the reputation of a prison encampment area as of ten years ago. Today, Kuppam is brandished by some as the 'silicon valley of the east' (Srinivasan 2001) where new technologies are being tried and tested within its vicinity. It is a rural Indian village, 105 kilometers from Bangalore on the Bangalore-Chennai railway. Telugu is the official and most widely spoken language in the state. Other spoken languages in this area include Urdu, Hindi, Tamil, English and Kannada. With a population of around 300,000 people across 5 districts, the area has experienced a transformation in every aspect of its development: from health, education, agriculture to employment. According to the official statistics (KADA 2003), improvements have been made regarding student enrolment rates, retention, school facilities, passing rates and the like. For example, the total literacy rates of primary and secondary school children in government schools have been reported to have jumped from 26% in 1989 to 68% in 2003. Within those years, total dropout rates amongst this population are stated to have

decreased by almost 84%. Furthermore, in 2003, the Kuppam district committed to installing computers at 20 public high schools under the Vidhya Vahini Scheme⁵ as an attempt to reduce the digital divide with the goal of covering all high schools by end 2005.

DISSEMINATION AVENUES FOR THE SLS FOLKSONGS PRODUCT

"Distribution systems that reach the BOP are critical for developing this market. Innovations in distribution are as critical as product and process innovations" (Prahalad 2004, p.43).

The following section presents the relevant available options within the HP inclusion model in Kuppam along with the related key challenges in approaching these distribution channels. I have illustrated the potential distribution channels available in the Kuppam community in Figure 1.

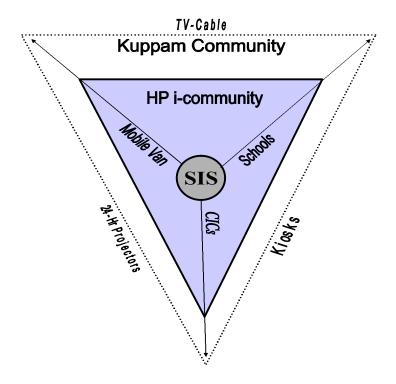


Figure 1: Potential distribution channels available in the Kuppam community

A. Schools

"Contrary to popular view, BOP consumers are getting connected and networked" (Prahalad 2004, p.14).

HP had been contemplating the setting up of CICs in certain local schools as ICT portals for the community. It is a natural choice given that schools are often the fulcrum where parents, teachers, community elders and children can gather. Also, the former government's initiative of

supplying computers to all government high schools by 2005 gave impetus to this idea. Notably, 70% of all government high schools in Kuppam are less than 5 years old (see Table 1).

Table 1: Education System in Kuppam: Government High School District Statistics 2003 + Fieldwork

Item	%
High Schools founded within last 5 years	70
On students	
Female students in high schools	43
Co-educational schools (M+F)	85
Students from Backward Castes, Scheduled and Tribal Castes	90
On Teachers	
Female teachers in schools	26
Language in Schools	
Schools with Telugu as prime medium of instruction	100
English as prime medium of instruction	0
Teachers graduated from Telugu medium school	91
Technology in Schools	
Schools with Computers	40
Televisions in Schools	38
Cable access	0
Student preferences in educational technology content	
Students claim playing computer games to be their favorite usage of internet	47
Students claim graphics & GK to be their favorite usage of computers	30
Students claim internet to be their favorite usage of the computers	17
Challenges reported: technology in schools	
Maintenance for technology in schools	62
Provision of education technology content	23
Computer teachers	42
Connectivity, Electricity problems	89
Facilities	
Schools with access to drinking water	50
Schools with libraries	15
Schools with girls toilets	32
Schools with Cultural activities/ Functions	57
School perception on education	
Principals that claim instilling moral values to be the most important aspect of schooling	75
Principals that claim schools main role is to prepare children with skills for jobs	17
Principals that claim hiring more teachers to be their most urgent need	43
Principals that claim their need for more facilities as most urgent	30
Access to drinking water being the most predominant facility need	60
Principals that claim reforming state mandated curriculum as their most urgent	9
Total	n=23

Prior to this time, most high schools were private, spanning from modest one room buildings to large spaces with state of the art equipment. Of interest, although the private schools charged an average monthly fee in addition to the cost of uniforms, books, entrance and lab fees, 61% of its total student body came from poor backward castes, scheduled and tribal castes (KADA, 2003, p.

21). Perhaps one of the most distinguishing features between private and public schools is their language of instruction. While government high schools use Telugu as the medium of instruction with English taught as a subject, most private schools teach only in English.

Through fieldwork observations across government high schools in Kuppam (n =23), it was apparent that a large number of government schools did not have access to drinking water, libraries, desks and chairs, and enough classrooms for all the children (Table 1). To a large extent government schools did not have sufficient teachers. In interviews with the principals of these schools, 43% (n=23) stated the need for teachers as their most urgent need (Table 1). The government has adopted the ICT pathway to tackle some of these chronic maladies. Almost half the government high schools had been given computers with the other half promised delivery by end 2005. Televisions had been provided to some schools in addition to the computers. This was to enable children to watch educational programmes shown on TV and thereby circumvent temporarily the dearth of teachers. However, we discovered that many schools did not have power lines for the television which had been delivered to these schools almost two years ago. Meantime, these televisions had been locked away in school storage for the last two years. Power is perhaps the most critical factor in ICT access. A shift policy system had been implemented in Kuppam where every alternate week there was a power outage from 10 in the morning to 5 in the evening. Another issue seemed to be maintenance of computer equipment (Table 1). For example, at one of the schools, we noticed six computers sitting idly due to a fuse problem. Due to a reported lack of support, these computers had been unused for months. "We are willing to pay from our own pockets, just tell us where to go," said the computer teacher at this

Furthermore, with the average ratio of 10 pupils to 1 computer in the classroom, more focus was given to collaborative, group learning activities. As part of content provision, some educational software was provided to these schools as tools for learning. Some of the teachers were using these programmes to instruct children by translating its English based material into Telugu, thereby converting it into a teaching aid. However, this was dependant on the teachers grasp of English. When it came to children directly interacting with the software, some of the children did not seem to understand the material. When we watched the students in these schools demonstrate their knowledge of the computers, we noticed that they were comfortable handling the computers. When asked to show us their favorite programme on the computer, some of the children showed biology centered programme, programmes on the Agra fort, and the solar system. Yet, when they were questioned on these programmes to gauge their comprehension, we realized that they had not grasped the meaning of the content. They were still dependant on the teachers to translate this information to them.

Interestingly, in interviews with the principals on their vision for education, 75% reported that instilling moral values was at the heart of good schooling (Table 1). Overall, there seems to be a scarcity of appropriate educational software. What is needed is ICT content in local languages, that is more culturally sensitive and engaging to the local populace. This serves as a natural forum for the SLS folksongs product. However, the current status of power, lack of maintenance and limited computers, pose as formidable barriers to content access.

B. Mobile Van

"The poor also spend their earnings in ways that reflect a different set of priorities. For example, they might not spend disposable income on sanitation, clean running water, and better homes, but will spend it on items traditionally considered luxuries" (Prahalad 2004, p.12).

"Both sides-the larger firms and the BOP consumers-have traditionally not trusted each other. The mistrust runs deep. However, private-sector firms approaching the BOP market must focus on building trust between themselves and the consumers" (Prahalad 2004, p.20).

At a school in Dasegownur, we asked the children about HP's i-community project. There was silence and blank stares. Soon someone timidly asked if we were referring to the mobile van. Over time, we realized that HP was better known across villages, among both children and adults as the mobile van. The mobile van was in actuality a large bus converted into a computer lab with laptops, printers, scanners, digital cameras, and speakers. There was a shelf of education and video game CDs. At the back of the van, there was a small compartment for soil testing. This equipment was supported by a solar generator attached to the van. In the evenings, the van doubled up as a movie theatre and showed government documentaries during the intermission. This was the most popular feature by far. Ironically, this was one of the few features that HP did not charge for. HP charged for services ranging from soil testing, requests for ration cards, crop prices to health information. They also charged for video games, and digital photographs. Interestingly, amongst these services, the most popular was the video games, followed by digital photography. In fact, the children primarily associated the mobile van with video games and the free evening movie. However, what was worrisome was that the staff under pressure to make a profit, were compelled to promote video games over educational games which were provided free of cost to the children by local non-profits. This exemplifies the challenge in balancing the dual mission of social empowerment and profit-making. In fact, this dual identity continued to create a conflict of interest amongst the HP staff when servicing their customers.

Another feature observed was the kind of clientele the van attracted. Boys were the primary consumers at the van. The girls on the other hand, stood as a group and continued to look on from a safe distance. None of the women in the villages came near the van, nor did they engage the team in conversation. It had been almost a year since HP started these trips to the villages. Yet, their ties to these communities were weak if any, else non-existent. Part of this could be explained by the fact that the HP van team was all male. To get more women on the HP team, women would have to sign up to work odd hours at remote villages with other men. This was not an ideal job for a woman with a family to support and a local reputation to maintain. Yet, with a flexibility of hours and partnering with Self Help Group (SHG) women⁶, this gender inequity could have been mitigated.

Furthermore, in an effort to do community outreach, the team would split up to do house surveys, leaving two people to mind the van to serve the customers. A team of four young men went house to house, making enquiries among the local villagers, mainly women in the households, on their knowledge of HP services. A young man led the troop of trainees, following with notebooks in their hand and cameras round their neck. The idea was to build trust and bring awareness through an ongoing dialogue with the locals. However, in practice, it appeared to be more like an intimidating HP campaign group. Besides the gender aspect, there was a flaw in the choice of people employed for this grassroots work. The team comprised of recently graduated young men full of enthusiasm to work in an IT multinational company but little real experience in grassroots activism. To penetrate these villages, it was important to partner with local NGOs who had the appropriate combination of skills for outreach activities. In spite of these hurdles, the mobile van is an innovative means of disseminating the SLS folksongs product. Its audio can be played at the onset of its arrival at the villages on the loudspeakers instead of the cinema songs. Also, during the cinema movie, or in the place of it at times, the SLS folksongs DVD/CD can be shown with karaoke competitions built around it with the entire village there to participate. Parents could see their children perform before the villages, making them more engaged in their literacy and acculturation process. This could also serve as a communal glue and a means for genuine trust.

C. Community Information Centers (CIC)

"It is clear, therefore, that pursuing the promise of BOP markets will challenge the dominant logic of both MNCs and NGOs. MNCs will benefit from learning how to engage with NGOs and local community-based organizations to co-create new products, services and business. NGOs will benefit from partnerships with MNCs, through which they can leverage MNC know-how and systems to scale innovations broadly" (Prahalad 2004. p.32).

Community Information Centers (CICs) are internet information portals for the community which builds on the idea that access to critical information like health, employment opportunities, farm prices and the like provides for social and economic mobility. We met with the manager of an international non profit stationed in Kuppam and contracted by HP to oversee the CICs. We asked her about the challenges faced in setting up the CICs. She stated that even though they had been working on this for about five years, the first two years were primarily spent understanding the scope in Kuppam. Initially they started with 15 entrepreneurs. However, within a year, this number was reduced to 7. She believed that the high failure rate occurred for a variety of reasons, the prime one being the large loan given at the onset which made paying back much harder for these villagers. Also, she claimed that their search process for entrepreneurial people to oversee these CICs was flawed from the start; "We were lucky to have found a few needles in the haystack but we did realize down the line that we were perhaps looking in the wrong haystacks to start with." However, with the help of the local activists, they were able to understand and improve on their processes. When we spoke of the HP partnership, she said that if it weren't for HP, their non profit would probably have taken the simpler route of making the CICs into cybercafés without the community building component given their capacity. Now they had branched into training, follow-up support, packaging of loans, assessing needs, marketing and ownership rights. However, private-public partnerships (PPPs) had their problems too, she remarked; "Any kind of partnership is hard – its as if we are forced to marry... but in India, we are used to arranged marriages and after a while, we get used to it and may even start to appreciate it." Overall, the CICs can function as a useful conduit for disseminating the SLS folksongs product, especially if the CICs are stationed in schools. However, the reverting of the CICs to serve as just cybercafés is a real possibility once the funds dry up.

D. Computer Kiosks

"Research on interface is critical given the nature of the consumer population. The heterogeneity of the consumer base in terms of language, culture, skill level, and prior familiarity with the function or feature is a challenge to the innovative team" (Prahalad, 2004, p.43).

There was a computer kiosk outside the HP office where children, primarily boys would cluster daily to play car chase video games. There was no mediator between the children and the computer interface. It had a touch screen and a mouse attached to it. Unfortunately, the idea did not reach fruition in serving as a hub for information access to the diverse public. Even though HP designed a comprehensive, multi-language site on social concerns, particularly targeted to women, this information was rarely accessed through these kiosks. Part of this could be explained due to its location at the HP office and the fact that it was primarily adult content. However, these kiosks have potential if placed strategically. Given that users tend to be children, more child centered content is needed for maximizing usage. For example, it can function as a dissemination tool for the SLS folksongs content or it can serve as a jukebox of popular community folksongs and thereby reach a more diverse public. These kiosks could allow for participation even amongst primary school children given that the current computerization efforts are targeted solely towards high schools. By stationing kiosks as entertainment portals in restaurants, coffee stands, train stations, and other populated areas, it could produce higher participation and buy-in that would reinforce parallel ICT and education efforts amongst other non profits, nationally and internationally. If embracing the revenue based model, it could charge a nominal fee, buying entertainment by the hour or half hourly. Instead of reinventing the wheel, these kiosks could share cyber space and costs with several different agencies, international and national that already have kiosks or content in place for medical information, health, agriculture and the like. This could function as a one-stop shop for the new ICT consumer. In essence, it can function as a 'carrot' for other social, cultural and economic applications.

E. Televisions: Public & Private

"Innovation must reach the consumer. Both the highly dispersed rural market and a highly dense urban market at the BOP represent an opportunity to be innovative in methods of distribution. Designing methods for accessing the poor at low cost is critical" (Prahalad, 2004, p. 27).

Nearly 500 million people in India have access to television. Hence this medium has been looked at seriously to scale social and cultural programmes across boundaries (UNESCO, 2003). A surprising discovery was the spread of cable amongst even the most remote villages in Kuppam. The reason cable had spread so quickly within these few years was partly due to the cost difference. The antennae for the televisions that allowed access to the Saptagiri national channel cost around Rs. 1000 (\$20) as a one time installation which was a small fortune for the villagers. However, if they paid Rs.30 per month (less than a \$1), they had access to cable TV. This defied the commonly held perception that public television programming is the most effective in reaching the poor. E-TV, a cable channel seemed to be more prevalent than the Saptagiri channel in quite a few villages we visited. The idea of disseminating the SLS folksongs CD/DVD through private channels where it could pay for itself by demand of the audience is a possibility. However, one must remember that even though cable has a fast growing niche market, public television viewing is still the predominant means of media outreach.

F. 24-hour projector

"Product development must start from a deep understanding of functionality, not just form" (Prahalad, 2004, p. 26).

We dined daily at a popular vegetarian restaurant at the heart of Kuppam proper. In the first week, we noticed a projector screen hanging above the public bike stand, just outside the restaurant. Part of the HP project, this projector was meant to give 24-hour access to information for the Kuppam community: news, the current prices of tomatoes to the weather report, this was meant to be the NASDAQ for village life on display, the democratic knowledge bank for the passer-by in the community. We were there at the onset of this effort. Initially, the screen displayed the geographic area and history of Andhra Pradesh. In the evening, the projector showed reruns of the same programme. The next day, similar programmes of tourist nature was shown. The third day, the projector was off by 5pm. And the following day, the screen was rolled up. From that point onwards, we did not see the screen used at any point during the day or night. It continued to be neatly scrolled up and untouched at the entrance of the restaurant. Genuine concerns of electricity supply, safety and ownership, technical maintenance, access to relevant content and regional language provision stood as obstacles in executing this successfully. SLS folksongs can be displayed on these screens for engagement and social empowerment. Much like the karaoke booths, innovative strategies in partnership and content creation can best facilitate this process.

CONCLUSION

At the Geneva conference in 2005, HP stated that it was already benefiting from its engagement in Kuppam, "...by establishing new partnerships and positions for the future, by strengthening its position in emerging economies for traditional products and services and by showcasing its technologies in compelling, high-volume applications" (WBCSD 2005, p.2). In 2003, several countries including China, Russia and Brazil evinced interest in implementing the inclusive community project (Financial Times, 2003). A year later, HP announced expansion of its inclusive community programme in Europe. Middle East and Africa with the opening of three new HP Digital Community Centers in Tula (Russia), Slavutych (Ukraine) and Wahdat (Jordan) (HP Press, 2004). Yet at the end of 2004, these projects lost its support under new HP leadership. This left several of these projects across global settings in a tentative situation. Many sub projects under this model, including a sound distribution plan for the SLS folksongs product has been pending. Several not-for-profit projects in Kuppam are likely to lose their funding as HP recedes from Kuppam.

The scope of this paper is not to resolve distributional challenges of educational technology products nor to execute a comprehensive analysis of the emerging market solution model pioneered by Prahalad and adopted by Hewlett Packard. Instead, I hope to shed light on some of the complexities involved in marrying social empowerment with profit-making as exemplified in the distributional hurdles for ICT content. I demonstrate this by juxtaposing some of the inventive principles proposed by Prahalad with ground realities within the HP inclusive community project. It needs to be noted that HP's effort to address the persistent issues of world poverty through the adoption and implementation of new models for development has been commendable. It was evident that much thought had been invested in the planning of the inclusive community to shape it into a holistic entity. Also, their strategic partnering with local and international not-for-profit projects furthered the integration of HP's processes into the community.. Also, one should not underestimate the impact of governmental commitment in furthering such a task. The former chief minister of Andhra Pradesh, Chandrababu, with his explicit support to reforms using ICT propelled these initiatives to rich and varied directions. Furthermore, within the limited time frame of three to five years, HP and their partnering organizations had gained knowledge of the local community and had been able to sieve through quite a few solutions that worked from those which failed. Yet, as new models are embraced and old ones discarded within the corporate realm, the risk of Kuppam reverting back into poverty is tangible and real. Overall, the issue of corporate responsibility in such an undertaking needs to be investigated further.

ACKNOWLEDGEMENTS

I would like to thank Hewlett Packard, particularly the HP Kuppam team for their openness in sharing their challenges and for the generosity of their time and effort at helping me understand some of the complexities of this project. I am grateful to Dr. Brij Kothari for his mentorship and support. I would also like to pay tribute to the local Kuppam government office that provided easy access to Kuppam's education and development data. I am also deeply appreciative of the Kuppam school teachers, principles, students and the like who have cooperated fully in this endeavor. Last, but not least, I would like to emphasize the invaluable role of P.S Jayamma, the field coordinator of this project. Due to her drive, local credibility and dedication, we were able to take this project to a much higher footing. Her efforts in this project have been deeply felt.

Endnotes:

- In this paper, I use the word "consumer" in the same light as Prahalad's usage of this word to continue to parallel his theory with my fieldwork experience. Hence, in this case, "consumers" refer to the disadvantaged, low income, marginalized individuals who continue to exercise power of choice based on their values and needs.
- Digital divide here is defined as the gap between those who have access to technology from those who do not. See digital divide network as an example of current ICT in development concerns: http://www.digitaldividenetwork.org/
- See Hewlett Packard Web site for details on the HP i-community in Kuppam initiative: http://www.hp.com/e-inclusion/en/project/project_kuppam.html
- ⁴ The implementation of multi-language frameworks and cultural features can be collectively viewed as localization.
- National Task force on Information and Technology Development. (1999). Information technology action plan Part III: Long term national IT policy. Retrived November 3, 2005, from Government of India Web site: http://it-taskforce.nic.in/actplan3/index.html
- SHGs are perhaps the most powerful groups in these village communities. Arguably one of the most successful development initiatives in the recent past, these microfinance groups borrow and lend finances amongst themselves for furthering their livelihood. In Andhra Pradesh, 70% of the women belong to SHGs (KADA, 2003). In fact, it has only been about five years since the SHGs were created in this region. In our observations and interviews, it seemed that they had become highly institutionalized in this short span of time. Instead of functioning as just microfinance models, they seemed to have become the prime portals in disseminating ideas, values and information across domains: health, nutrition, finance, employment and the like. For more information on the impact of SHGs on social mobility, see the World Bank Web Site:

http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTGENDER/0,,contentMDK:20619 817~menuPK:336874~pagePK:64020865~piPK:149114~theSitePK:336868,00.html

Abbreviations

AIDS Acquired Immune Deficiency Syndrome
CD-ROM Compact Disc Read-Only Memory

CEO Chief Executive Officer

CIC Community Information Centers

CPU Central Processing Unit

DD Doordharshan
DVD Digital Video Disk
EFA Education For All

ICT Information and Communication Technology
IIM-A Indian Institute of Management - Ahmedabad

KADA Kuppam Area Development Authority
HIV Human Immunodeficiency Virus

HP Hewlett Packard

NCERT National Council of Educational Research and Training

NGO Non-Governmental Organization

NASDEQ National Association of Securities Dealers Automated Quotations

OECD Organization for Economic Cooperation and Development

PC Personal Computer

PPEDS Poor People Education and Development Society

PPP Private Public Partnerships

PROBE Public Report on Basic Education in India

SHG Self Help Groups
SIS Stills in Sync

SLS Same Language Subtitling

UNESCO United Nations Educational, Scientific and Cultural Organization

WBCSD World Business Council for Sustainable Development

REFERENCES

Biswas, S, 2004, 'How India's elections were won and lost,' May Issue. Retrieved November 7, 2005, from BBCW orld News, South Asia: http://news.bbc.co.uk/2/hi/south asia/3711395.stm

Kothari, B, 2000, 'Same Language Subtitling on Indian Television: Harnessing the Power of Popular Culture for Literacy,' In K, Wilkins (ed.) Redeveloping Communication for Social Change: Theory, practice and Power, pp 135-146. New York: Rowman & Littlefield.

Kropp, E & Suran, B.S, 2002, 'Linking Banks and Self Help Groups in India.' New Delhi: NABARD.

Manuel, P, 1998, 'Music, Identity, and Images of India in the Indo-Caribbean Diaspora,' vol. 29, no. 1, pp.17-35. Asian Music.

OECD, 2001, 'Knowledge and Skills for Life: First Results from PISA 2000' pp 69-96.

Prahalad, C,K, 2004, 'The Fortunes at the Bottom of the Pyramid: Eradicating Poverty through profits.' New Delhi, The Wharton School Publishing, Pearson Education, Inc.

Prasad, A, 2004, 'For Rural Entrepreneurship: A non philanthropic business model for collaborative e-governance project takes IT to rural Andhra Pradesh,' October 6th Issue. Dataquest Magazine.

Srinivas, R, 2003, 'Profiting from Non-Profit Activities.' Mumbai: Financial Express, Indian Express Group.

Srinivasan, S, 2001, Associated Press 10-29-2001, TeNet press group. [On-Line]. Retrieved November 7, 2005, from TeNet press group Web site: http://www.tenet.res.in/Press/29102001.html.

- The Economist, 2004, 'Face Value: Profits and Poverty,' August 19 Issue. Retrieved November 7,2005, from the Economist.com Website: http://www.economist.com/business/PrinterFriendly.cfm? Story ID=3104498
- UNESCO, 2003, 'IT in Education Innovation for Development Interfacing Global and Indigenous Knowledge.' Bangkok.
- Varshney, A, 1995, 'Democracy, Development and the Countryside: Urban-Rural Struggles in India.' New York: Cambridge University Press.
- World Bank, 1996, 'Primary education achievement and challenges' (Report no.15756- IN). Washington DC: Author.
- World Bank, 2001, 'India: Expanding and improving upper primary education in India,' (Report no. 20347 –IN). Washington DC: Author.
- World Business Council for Sustainable Development, 2005, 'HP e-inclusion, Kuppam hp i-community, Case study 2005.' Retrieved on November 7, 2005 from Hewlett Packard Website:
 - http://www.wbcsd.org/plugins/DocSearch/details.asp?type=DocDet&ObjectId=MTQ0ODc

Copyright for articles published in this journal is retained by the authors, with first publication rights granted to the journal. By virtue of their appearance in this open access journal, articles are free to use, with proper attribution, in educational and other non-commercial settings.

Original article at: http://ijedict.dec.uwi.edu//viewarticle.php?id=74&layout=html