
ICTS AND WOMEN'S EMPOWERMENT: SOME CASE STUDIES FROM INDIA

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According to the World Bank [2004] the main key services fail poor people – in access, quantity and quality. This necessitates a set of development targets known as Millennium Development Goals [MDG]. These call for halving of the global poverty and broad improvements in human development by 2015. The Millennium Declaration adopted by UN in 2000 underscored the urgency of ensuring that the benefits of new technologies, especially Information and Communication Technologies [ICTs] are made available to all. One resource that liberates people from poverty and empowers them is knowledge. It is also now well understood that any attempt to improve the quality of life of people in developing countries would be incomplete without progress towards the empowerment of women.

Information and Communication Technologies [ICTs] are a diverse set of technological tools and resources to create, disseminate, store, bring value-addition and manage information. The ICT sector consists of segments as diverse as telecommunications, television and radio broadcasting, computer hardware, software and services and electronic media, for example, the internet and electronic mail.

ICTs are emerging as a powerful tool for gender empowerment in a developing country like India. There has been a rapid growth in the ICT sector since the late 1980s and the use of ICT has dramatically expanded since the 1990s. According to the World Bank, teledensity in India had reached 3.8% of the population by 2001. The number of internet accounts is growing at a rate of 50% per annum. The ITES-BPO sector alone grew at 59%, and employment had reached 106,000 by 2004 [NASSCOM 2004]. The IT and ITES sector is projected to grow 18% in the next five years to become an industry of Rs 4.58 lakh crores by 2011, according to an IDC release . But there is a strong digital divide in society. According to the 2004 report by the Cisco Learning Institute women comprise only 23% of India's internet users. This gender digital divide in India is characterised by low levels of access to technologies. Poverty, lack of computer literacy and language barriers are among the factors impeding access to ICT infrastructure, especially in developing countries.

This paper looks at the avenues created by ICT-enabled networking processes for women's empowerment. It discusses the main challenges and obstacles faced by women, suggests practical strategies to address those challenges and goes on to suggest ways to improve the conditions leading to women's empowerment. The paper also analyses a case study from India and examines how women's 'power within' has been enhanced through their access to and control of Information and Communication by use of ICTs.

KNOWLEDGE NETWORKING AND EMPOWERMENT

Empowerment of women in the context of knowledge societies entails building up the abilities and skills of women to gain insight into the issues affecting them and also building up their capacity to voice their concerns. It entails developing the capacities of women to overcome social and institutional barriers and strengthening their participation in the economic and political processes so as to produce an overall improvement in their quality of life.

Knowledge networking catalyses the process of women's empowerment by opening up avenues for women to freely articulate and share their experiences, concerns and knowledge, creating the possibility of their further enrichment. By the use of ICT women can broaden the scope of their activities and address issues previously beyond their capacity. There is a growing body of evidence on the use of ICT to empower women all over the world. For example, the African Women's Network of the Association for Progressive Communications [APC] has conducted training workshops to support electronic networking among women's groups. The Multimedia Caravan project in Senegal provided rural women with the opportunity to develop their own ideas on how ICT can be used to meet their development needs and goals. In Kenya, women and men weavers were trained in using the internet to learn new weaving techniques and access more realistic prices for their products. In Uganda, the Uganda Media Women's Association established a radio programme – Mama FM – where women can actively participate and learn about development issues such as, among others, human rights, children, governance, nutrition, health. The UNDP telecenter project in Ukraine applies ICTs to agriculture and farm management to support women farmers, who identified lack of information and networking tools as the major obstacles to their becoming successful entrepreneurs in a new market economy.

Since India has been using ICT for development for more than two decades, there are many good practices for the use of ICTs for women's empowerment. India Shop, an e-commerce website [2005] in Tamil Nadu, has been designed to sell products made by rural women's co-operatives and NGOs. The Dhan Foundation [2004] and Swayam Krishi Sangam [2004] are using ICTs, such as handheld devices and smart cards, to improve microfinance projects to empower poor women. The Self-Employed Women's Association [SEWA, 2004] has several ICT projects for women, including community learning centers, a school of Science and Technology for self-employed women, and the Theliphone project, which provides mobile phones to women in the informal sector.¹

Self-help groups of rural women in Andhra Pradesh, have been so successful in marketing their products at home and abroad that the major MNCs [multi-national corporations] want to use their selling skills.

¹ The term 'informal sector' is used mainly with reference to developing countries. The ILO defines it as an unorganized sector in which economic activities take place outside the framework of public and private sector establishments. Such activities are characterized by small scale of operations, ease of entry, reliance on family labour and local resources, labour-intensive technology, low capital endowments a high degree of competition, unregulated market, unskilled work force and acquisition of skills outside the formal education system. In India this sector cuts across well-defined crafts or industry conglomerates like cottage and household industries, khadi and village industries, handlooms, handicrafts, coir, sericulture, etc set up all over the country in rural, semi-urban and urban environments.

ACCESS TO INFORMATION

Access is the central issue necessary for women's empowerment. Women have traditionally been excluded from the external information sphere, both deliberately and because of factors working to their disadvantage such as lack of freedom of movement or low levels of education. ICT opens up a direct window for women to the outside world. Information flows to them without any distortion or censoring. This leads to broadening of perspectives, greater understanding of their current situation and the causes of poverty and the initiation of interactive processes for information exchange.

Access to ICTs is crucial if they are to be a means for women's economic empowerment. We need to work towards universal access. It is important not only to establish physical facilities, such as communication networks or computers, but to ensure that these facilities are utilized by their users to the greatest possible extent. Women's access to and use of ICT is constrained not only by technological infrastructure, but also by socially constructed gender roles and relations. According to a UNESCO report on "Gender Issues in the Information Society", the capability of women to effectively use information obtained through ICT is clearly dependent on many social factors, including literacy and education, geographic location, mobility and social class.

ICT can deliver potentially useful information, such as market prices for women in small and micro-enterprises. For example, use of cellular telephones illustrates how technology can be used to benefit women's lives, by saving travelling time between the market and suppliers, by allowing women to call for product prices and by facilitating the constant juggling of paid and unpaid family activities. However, use of ICT will be limited in impact wherever women have limited or no access to roads or transport, credit and other development inputs. ICTs require that users have some skills and one should not assume that providing the facilities means that everyone in the community will immediately embrace the technology. Two important aspects need to be mentioned. First, as Eva Rathgeber clearly stated, "the key issue is that the technologies should be adapted to suit women rather than that women should be asked to adapt to technology." And secondly, ICT training is of utmost importance if women are to use the technology of their choice. Gaining the required skills further empowers women to use ICT in order to increase their employment choices and contribute to community development. Therefore, the provision of ICT facilities should be complemented with additional services and training.

In developing countries like India, more than 90% of women work in the informal sector and also in rural areas. These women engage in economic activities such as handicrafts and sewing or rolling cigarettes, weaving of baskets and fabrics, working in cities as vendors – working without any contracts or benefits. These are the women who need and deserve poverty alleviation programmes more than any other. IT will expose these women to telecommunication services, media and broadcast services that will create markets for their products and services. The challenge will be to reach these women and provide them with ICT tools that they feel can make a difference in their income generation potential. For example, the well-known Self-Employed Women's Association [SEWA] in India has done extensive work to assist women in the informal sector and has established an ICT programme aiming to increase efficiency of rural micro enterprise activities.

EMPOWERMENT THROUGH EMPLOYMENT

ICT has played an important role in changing the concept of work and workplace. New areas of employment such as teleworking, i.e. working from a distance, are becoming feasible with new technology. The question needs to be asked whether women are getting more opportunities. Undoubtedly, internationally outsourced jobs such as medical transcription and software services have opened up tremendous work opportunities for women in developing countries like India, China and the Philippines. With an expected 500 percent increase in India's ICT services and back-office work, involving jobs for four million people and accounting for seven percent of GDP by 2008, women's employment in this sector is expected to grow. ICT offers women flexibility in time and space and can be of particular value to women who face social isolation in developing countries. As a result of the technologies, a high proportion of jobs outsourced by big firms are going to women. They can, therefore, work from outside the office – often from their own homes and at any time, thereby raising their incomes to become more financially independent and empowered.

There is considerable debate about which women benefit from the new form of work and about the implications of the type of work women do in this sector. The International Labour Organisation [ILO] World Employment Report for 2001 observed that patterns of gender segregation are being reproduced in the information economy with women concentrated in end-user lower-skilled ICT jobs related to word processing and data entry and men in more senior managerial, administration and design of networks, operating systems and software. Studies of call centers in Delhi and in the New Okhla Industrial Authority [NOIDA] demonstrate lack of opportunities for development and promotion and a high degree of burnout among women. Very few women are employed at the professional level of business process outsourcing [BPO]. Flexi-timing is at a great cost to women themselves, given the fact that the division of work at the household level remains the same. Due to the high premium placed on productivity, people invest all their energies, time and emotional needs in their jobs, so that there is little to fall back on when the workplace fails them.

EMPOWERMENT THROUGH ENTREPRENEURSHIP

Gothoskar [2000], in an interview with women teleworkers in Mumbai, got responses ranging from welcoming the freedom to fulfill family commitments to dislike of the lack of access to public and social spaces and reinforcement of the role at home. Telecenters can solve these problems by combining home work with social spaces and organization. One way to do this is to move to Entrepreneurship on the internet. The Internet can offer great assistance to Entrepreneurship by women. It offers databases, put together by women's groups, from which women can find relevant links, connections, resources and information and develop partnerships, not just for their services, but also for financing, mentoring and business coaching. It can even mitigate the effect of lack of access to capital. Support groups can be formed through electronic bulletin boards. Thus the internet itself can help to organize and build solidarity with and between people working from home offices. It can break down isolation, aid job related concerted action, or just increase information, opportunities and interaction. Rural women in developing countries may be able to sell their products directly without going through middlemen.

One of the most powerful applications of ICT in the domain of knowledge networking is electronic commerce [E-commerce]. E-commerce refers not just to selling of products and services online but to the promotion of a new class of ICT-savvy women entrepreneurs in both rural and urban areas. E-commerce initiatives can link producers and traders directly to

markets at national, regional and even global levels, allowing them to restructure their economic activities and bypass middlemen and the male-dominated and exploitative market structure.

Significantly a number of non-profit organizations have diversified their services to provide support to this class of entrepreneurial women. PEOPLink is one such organization which has been helping women communities traditionally involved with handicrafts to put their products online in the world market. It is building up a global network of Trading Partners [TPs] that, in turn, will provide services to several community-based artisan producer groups. It equips the TPs with digital cameras and trains them to capture images and edit them in a compressed format suitable for transmission via the internet. The images of crafts are placed on the PEOPLink web page and efforts are made to promote them to retail and wholesale buyers in the industrialized countries. In Gujarat, India, women producers use the Dairy Information System Kiosk [DISK] which manages a database of all milk cattle and provides information about veterinary services and other practical information about the dairy sector.

CHALLENGES OF ICT USE FOR WOMEN'S ECONOMIC EMPOWERMENT

Women face enormous challenges to use ICT for their own economic empowerment. Using and benefitting from ICT requires education, training, affordable access to the technology, information relevant to the user and a great amount of support [to create an enabling environment]. Access to affordable services and availability of infrastructure is without doubt a major requirement if ICTs are to be used for women's economic empowerment. Availability of electricity, transport and security may also influence the use of ICT.

Radio and television, as the widest form of communication, provide one way of solving information dissemination. In addition to being used as effective ICT for development, radio and television should be considered and used as a means of educating the population on the benefits of ICT for development. Radio and Television programmes can be developed to educate women on various development issues, including the various uses of ICT, thus increasing awareness and knowledge of ICT's uses. When possible, such programmes should be developed and conducted by women and their content should reflect a gender perspective.

Even when infrastructure is available, affordable access is a concern in most developing countries. Universal access policies aim at developing solutions that provide community access at affordable prices. Expansion of public telephone and ICT access points are examples of these solutions. Telecenters, however, do not guarantee affordable access because most telecenters are run as business ventures that need to be sustained and therefore charge for services according to their costs.

Lack of local and community-related content in local languages continues to be a major barrier in women's use of ICT for economic empowerment. To make ICT more useful and meaningful, particularly for rural and poor women, relevant information and tools need to be provided to address women's needs and demands. Multimedia can be developed to provide information both in spoken and written language. The challenge is to develop content that is relevant and useful to communities in their own language.

PRACTICAL STRATEGIES FOR WOMEN'S ECONOMIC EMPOWERMENT THROUGH ICT USE.

Understanding the challenges allows us to address the problems better and devise strategies that consider the complex dimension of women's lives. One of the strategies adopted to increase access of remote areas and marginalized groups to ICT is the development of public access centers, such as public phones, telecenters, libraries, information centers or cybercafes. Telecenters can be part of existing institutions such as health centers, schools and community centers. The growth of cybercafes and kiosks has been rapid in India, especially in the southern states where literacy is high. A survey in eight Indian cities has showed that non-working women access the net 63% from cybercafes and 32% from home. A knowledge center project of the M. S. Swaminathan Research Foundation in India has connected four villages in Pondicherry with practical local information in Tamil. This has proved useful in improving agricultural practices and marketing and access to medical facilities.

To ensure that women take full advantage of these it is important to make the venue comfortable and safe. In many cases, the location of and arrangements around public access centers are decided without keeping the constraints on women in mind, such as inappropriate opening times [including evenings], security issues and lack of transport. Women's multiple roles and responsibilities may also limit the time available to use such facilities. Experience also shows that women are more comfortable in women-only training environments.

Training programmes should be offered free of charge or, in fact, be considered a 'job', in that participants are paid a certain salary as an incentive to participate and increase their education and qualification level.

Content in local language is extremely important if ICT are to make a difference in women's lives. It is therefore, extremely important to develop content that addresses local/regional/national needs, to provide information relevant to local/regional/national issues and disseminate that information in appropriate language. The question is "How ICT can adjust to the needs of women rather than women having to adjust to the ICT sector?" In order to respond to this question, gender and ICT advocates and practitioners must engage in gender-aware participatory methods to assess the needs of women and develop a clear understanding of how ICT can best be used as a tool for women's economic empowerment so that we can develop creative solutions that promote and facilitate the use of ICT. Using the example of women in the informal sector, it is important to allow women to choose the technology they feel most comfortable with, such as a cellular telephone to call for market prices, even if it may not be the most efficient solution.

It is important to view ICT as a tool to meet women's development needs and accordingly all forms of ICT should be considered to determine which are more appropriate in a particular setting and for the a particular programme. It is our responsibility to make technology work for the people and in many cases, this requires a gradual transition in ICT usage. For example, women in the informal sector may decide that cellular phones are all that they need to improve their business, but may become more interested in the use of internet for business purposes once their businesses grow and they feel more comfortable with using technology.

NABANNA – A SUCCESS STORY OF EMPOWERMENT

“Networking Rural Women and Knowledge”, a UNESCO project in Nabanna, India, explores innovative uses of databases, intranet portals and web-based partnerships in the local language for the benefit of poor women. The project puts emphasis on building a framework for information sharing, content creation, off-line information dissemination and web-based partnership with organizations located outside the region. The purpose of the project is building women’s local information networks by providing simple facilities and training at five ICT centers in Baduria, Rudrapur, Taragunia, Arbelia and Punda.

Through this project a core group of 60 information agents aged 20-40 years have gained access to and control of information and communication technology through using ICTs. Through the Nabanna Network women share local indigenous information as well as information obtained at the information group meetings or newsletter, e.g. women in Baduria have exchanged information on income-generating activities, specific education projects, microfinance and health. Therefore, young educated women have obtained access to and control of ICTs where less educated and older women have obtained access to information through the human network.

Women in Baduria have enhanced their agency through ICTs. UNESCO [2004] reports the following changes in women’s agency after gaining access to information and communication through Nabanna:

- Women gained more respect in their local communities as a result of ICT skills acquired at the center – learning to use a computer and accruing and distributing the Information to local people. This resulted in greater respect both at family and community level.
- Younger women felt they were able to approach the job market with greater confidence than before. ICT skills help them to find jobs and increase their income.
- Women became more creative after learning a program like Paintbrush in Windows XP.
- Women have achieved an increase in income as well as enhancement of solidarity among women in the community.

While learning to use computers together at the ICT center women often discuss their problems, creating a sense of unity and developing leadership qualities. ICT increases women’s agency in the household, community and the market. In the household, information obtained through ICT enables them to negotiate and bargain with their family members. Thus women have enhanced their sisterhood and experienced collective empowerment through the Nabanna network. This sisterhood in the community empowers women as a group and allows them a greater voice in the community, hence increasing their influence on local government for implementing projects to promote maternal health, girls’ education and sanitation. However, although the Nabanna project has tried to include marginalized women in the information network, illiterate and indigenous women still have difficulty accessing ICTs.

THE WAY AHEAD: KEY ISSUES FOR THE FUTURE

Equitable access to ICT technology and the autonomy to receive and produce the information relevant to their concerns and perspectives are critical issues for women. They therefore need to be involved in decision-making regarding the development of new technology in order to participate fully in its growth and impact. Access and costs being some of the greatest barriers for ICT use, it is of the utmost importance to engage women and gender advocates in the policymaking process and dialogue. It is important to engender ICT policy to ensure that women, particularly rural and poor women, benefit from ICT. Gender must be considered from the start of project design. Only then can ICT policies and projects properly address the gender digital divide and further contribute to women's economic empowerment.

Personal ownership of ICT is not feasible in the foreseeable future for the vast majority of women in developing countries. Hence the question of where and how they can gain access to ICT becomes important. This is an area where intermediary organizations can help bridge the 'last mile' of connectivity. They can ensure that email accounts, bulletin boards, search engines, mailing lists, and other useful functions serve as communication, networking and collaboration channels among women's groups, and between women and the external sphere. In order to facilitate access for women from other classes and sectors, these intermediary organizations need to be strategically located in local institutions to which women have open and equal access, such as health centers, women's NGOs, women's employment centers, libraries, women's studies departments and institutes, community centers etc.

The potential of ICT for women in developing countries is highly dependent upon their levels of technical skill and education and is the principal requirement for accessing knowledge from the global pool. Government and NGOs need to impart technical education on the use of ICT as a part of both formal and informal education system and to initiate distance learning and vocational courses.

It needs to be realized that information and communication technology by itself cannot answer all the problems facing women's development, but it does bring new information resources and can open new communication channels for marginalized communities. Last but not the least, when policies and programmes are in place to improve access, paucity of funds should not be a hindrance to establishing ICT access points or even implementing telecenter-type programmes. As UN studies have indicated, though the costs of using ICTs for development may be high, not using them at all may prove to be costlier.

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