Gender technology and development

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Abstract

Information and Communication Technologies (ICT) have been identified as one of the most effective tools to bring about gender and economic development almost simultaneously. Information Technology was initially thought of as the preserve of men, but that is not the reality. There are women in ICT, who are working in different fields of ICT. These women have put in tremendous efforts to prove themselves in this male dominated field. They have braved all odds, in dealing with the pressures from their families, their colleagues, the workplace and the society as a whole, to pursue their dreams in ICT and to make those dreams a reality. Many of these projects serve as role models to women both young and old who want to enter the ICT field. However, lack of training, access and the cost of ICT continue to be major development obstacles, particularly in the developing world. This paper presents a collection of case studies on the empowerment of Indian women and their communities through Information and Communication Technologies, which has enabled economic growth, employment and skills generation for these women. In addition it has led to the improvement of education, health care and access to other information

Introduction

Information and Communication Technologies (ICT) are for everyone and women have to be an equal beneficiary to the advantages offered by the technology, and processes and products which emerge from their use. The benefits accrued from the synergy of knowledge and ICT need not be restricted to the upper strata of the society but have to flow freely to all segments of the women population. For centuries Indian women have limited themselves to caring for their families, their husbands' families, and working in the fields. Slowly, however, technology is

reaching the rural masses and helping women take charge of their lives and, in some cases, giving them a livelihood. Traditional women are now stepping out of their homes and doing new things which they never thought they would do. Women who had never seen a computer or even made a telephone call are getting their first taste of technology. The fingers that deftly packaged pickles, snacks, detergents and household items are typing keyboards and clicking the mouse as well.

The gamut of areas in which ICT has put greater control in the hands of women is wide and continuously expanding. ICTs provide women with economic and political empowerment, increased learning opportunities and improved market access for their products. Many ICT projects started most by non –governmental organizations with generous foreign funding have encouraged many poor women to come out of their confines of their homes and making a success.

Craftswomen use ICT to sell handicrafts

Increasingly ICTs are helping to bring women closer to opportunities for economic growth, Today, arts and crafts are finding greater recognition and patronage from Indian and international audiences. Several projects use ICT to enable women to sell handicrafts over the Internet. In India shop is an e-commerce Web site designed specifically to sell products made by rural womens' cooperatives and NGOs in Tamil Nadu, India. The site helps them to obtain higher prices and thus larger profit margins by selling their products online.

In the Northern state of Uttar Pradesh's Jhansi where women have been relying extensively on the internet to generate business inquiries from interested customers based worldwide in their handicrafts. They are able to use the Net to negotiate a fair pricing for their products without an intermediary; and also get repeat business from the buyers. The websites are providing a source of income for housewives who find it difficult to find work outside of their homes.

Earlier these craftswomen were exploited by the middlemen who used to retain bulk of the sale proceeds from the crafts; giving the women a small share. Now they have started using the Internet for sourcing a new variety of crafts that they are unable to make and in which their buyers are interested. There has been an improvement in their living standards and lifestyle during the last two or three years. Through various websites women in India are able to take orders for their

handicrafts from all over the world, providing a source of income for housewives who find it difficult to find work outside of their homes

Design on websites

Several women are already receiving orders from the buyers directly through the buyer-seller linkages. A 40 –year –old designer, Manchabem, living in a village in the Western State of Gujarat received the help of India's National Institute of Technology to put her designs on a website. An international tie store spotted them and placed an order for 5000 ties. Now she can afford to build herself a house and has plans for a village school. This is an example of e-commerce penetrating into the rural community.

The info devolopment Lucknow- Kanpur project

InfoDev, a global grant program managed by the World Bank promotes the 'chikan' embroidery weavers of Lucknow and women engaged in informal, petty businesses in Kanpur. The project deploys computer-aided design (CAD) based embroidery technology, multi-media CDs over the cable network, narrow-cast transmission of content and local community cable internet. The market linkages between the producers and the buyers are facilitated extensively by Datamation Foundation by holding buyer-producer meets, exhibitions, sampling, cataloging, ICT enabled internet marketing, fulfillment and quality control.

Internet to access crop prices

In the Dhar district of central Madhya Pradesh state, villagers use the Internet to access crop prices and land and health records, and to register complaints with the government. Rathod, a 35- year old illiterate woman from Dehrisarai, and other vendors in her village keep track of the latest rates of fruits and vegetables in the wholesale markets in the neighborhood of her village cyber café. If the prices are lower than in the village market, they pool their resources and catch a bus to the place with the cheapest price and then resell them in their home market.

Protecting women through ICTs

Nari Raksha Samiti (NRS) (New Delhi) aims at protecting women from human rights violations. In April 2001, the NRS launched an online service designed to

provide women an outlet to report violations against them. The NRS also empowers women by offering training in a variety of topics including computer operation.

Helpline for women

In Trichy, an NGO has created a helpline for women in distress to handle issues such as rape, sexual harassment, battering and dowry harassment, and eve teasing. They can file complaints through e-mail and thereby avoid going to the police station. The service has initiated active interest among the women as they avoid the social stigma of having to go to a local police station, which means most often having to encounter redtape and corruption.

Internet kiosks

Internet Kiosks are run as self-sustained businesses, with cost recovery through service charges. A majority of the kiosks are locally owned and operated by self employed entrepreneurs, while some are owned by self help groups of a local non governmental organization. In Tamil Nadu, majority of kiosks are operated by women. The Internet kiosks offer a number of services including basic computer education, e-mail, web browsing, e-government, health, agricultural and veterinary services, mostly on a fee-for services basis.

Internet for healthcare

The use of internet for healthcare information is amply illustrated by the story of the cow and the computer showing that sometimes the simplest information is the most valuable. Some months back, Subrayan Panjaili, a round-faced woman who could not read or write, sat in the courtyard of her small home in the village of Kizhur, in Pondicherry, with the family's only milk cow, Jayalakshmi. For five days and nights, the cow moaned while in labor. Something had gone wrong and she was unable to deliver her calf. Mrs. Panjaili grew ever more fearful that the cow would die. "This is the only good income we have," she said, explaining that the four litres of milk the cow produced each day paid the bills.

The word of Mrs. Panjaili's woe soon spread to Govindaswami, a public-spirited farmer who had obtained a computer through the Swaminathan Foundation. The computer placed in the anteroom of his house was operated full time and for no pay by his 23-year-old, college-educated daughter, Azhalarasi, who used it to call up a list of area veterinarians. A doctor arrived one night and, by the light of a

bare electric bulb, stuck his arm into Jayalakshmi, pulled out the calf's spindly leg and tied a rope to it, then dragged the calf into the world. This incident shows how the timely use of internet could make possible to locate a veterinary doctor instantly and cure the cow in its ailment, besides providing relief to the owner of the cow because she could continue to pay her bills.

Besides, women in different states are making use of computers/internet to suit their needs.

- In Kerala thousands of women are getting paid for typing government documents in English on computers in small offices.
- In Karnataka, Bangalore, village women in many areas have done away with corrupt money lenders who fleece the illiterate. Womens' self-help groups now save money in banks and keep track of their savings on computers.
- In Sikkim, the state authorities have set up 40 community information centers in remote areas equipped with six computers each and a direct satellite link and are teaching women to use computers. Eventually, the villagers may be able to use computers to get government data, lodge complaints or vote.
- India's information technology is transforming the lives living on the remote heights of Himalayas. The women from the Yak herding tribes sit in front of the computer to send e-mail messages to their husbands working in faraway cities

Foundations

Some foundations are actively involved in empowering women by providing them with the required information on matters related to market prices, health, and promoting livelihood through their training programmes.

M.S. Swaminathan research foundation

A novel experiment was conducted by the M.S Swaminathan Research Foundation (MSSRF) as part of its bio- information Village Experiment which began in December 1998. This experiment has transformed the village of Villianur, Pondicherry into a hub of an information revolution. People in this village, are connected through an online database which helps them access required information in their vernacular language. The villagers congregate around the

centre to get connected with the latest local news. Women get information about the wholesale and market prices of vegetables. Women wanting some health-related information get all the details about their particular ailment and name of the doctor who can attend to them.

Datamation foundation: ICT for poverty reduction

An innovative ICT for Poverty Reduction (ICTPR) project to promote livelihood among Muslim women in the Seelampur slums in Indian National Capital was implemented by Datamation Foundation, a local NGO in association with the UNESCO South Asia Regional Office. The project aims at training the Muslim minority women in the application of ICTs for their income and vocational skill enhancement. The project also aims at assessing social and economic impact of ICTs in improving the quality of their lives.

The center also recognizes the importance of health education among the community members and incorporates the same in curriculum. Multi Media resource developed on AIDS, cleanliness, common cold, malaria and pregnancy are also developed and are available for the reference of the trainees. The project is very cost effective as it uses the local madarasa and little investment is made to develop and run the center.

Akshaya e-literacy campaign

The Akshaya Project was piloted in November 2002 in Malappuram district of Kerala. The project was designed by a group of IT professionals and senior bureaucrats, with substantive involvement of the community and the local Panchayat. The emphasis was on the objective of imparting computer literacy to the population. The state government provided basic connectivity; local banks were roped into provide loans to entrepreneurs and around 500 telecentres were started. The local government (the panchayat bodies) earmarked resources for the computer literacy of one member of every household. The Akshaya e-literacy campaign was very successful – every center handled the e-literacy of around 1000 trainees, local womens' groups spearheaded the campaign, 68% of the trainees were women and the entire process was closely monitored by social animators. The e-literacy programme was completed in the district, and the community in Malapuram has been exerting pressure on the government to build upon the success of the e-literacy campaign. While entrepreneurs in the Akshaya

centers currently generate revenues through telephony and e-learning packages, the state government is committed to using the connectivity infrastructure to network the centers as hubs of social development. The district administration has already used the ICT infrastructure for health mapping and water resources mapping. Applications in agriculture and health are also poised to be rolled out. Even as Akshaya reflects the potential role for state-led ICT initiatives, the local contours of every Akshaya center will be shaped by many variables – what women get out of these centers depends not only on the opportunities that the government creates, but the involvement of the poorest women at the local level in engaging with the programme as citizens with an equal claim.

Kudumbashree project (Kerala)

The Kudumbashree poverty eradication initiative is a unique scheme that has created a state-wide series of cooperative microenterprises, which are all owned, managed and operated by women from "below poverty line" families. In addition to more "traditional" enterprise, Kudumbashree has facilitated the creation of more than 100 ICT-based microenterprise units that provide jobs for more than 1,000 poor women. The units are focused around three main activities: data entry / digitisation, IT training, and hardware assembly. The women have also benefited from increased interaction, contact and communication at local, regional and international levels.

ICT and womens' employment

ICT makes the role of time and distance less significant in organizing business and production related activities. As a result of the technology, a high proportion of jobs outsourced by big firms are going to women. Recently companies like Ford and General Electrics have moved their backend operations to Asia and employ a large number of women workers having basic information technology and data management skills. New areas of employment such as telemarketing, medical transcription etc. have opened up tremendous job opportunities for women. These jobs are definitely underpaid and fall at the lower segment of ICT jobs, nevertheless, they are opening up avenues where none existed before.

Home based IT

Like all home based workers, usually a married woman with children who has some basic marketable skills but finds it impossible to get to keep a regular job that also allows her to manage her domestic workload. This category of women is involved in tasks such as medical and legal transcription or maintenance of daily accounts, for small clients-individuals or small businesses in northern countries. The average earnings of women in such work looks far less enticing when one deducts the investments they make-buying a computer, paying for electricity and internet connectivity, frequently staying up all night to meet deadlines

Women in call centers

In India today often young girls from middle class homes are working in call centres. They earn far more than peers in other sectors and lead apparently better lives. They are transported to and from work in air-conditioned vans. Their workplaces are climate controlled and attractively decorated, food and drink is on the house. Call centres constitute a large chunk of the clientele for Pizza Hut outlets and ice-cream parlours in their vicinity. Employees and employers are all young people and there are opportunities for socialization between shifts. Thousands of young Indian women are learning to talk with an American accent. Yet under this happy scenario, is a situation of exploitation that causes serious concern. The work is stressful and working hours are completely upside-down. The girls work in shifts. There are no holidays and call centres are open round the clock. Many of them show symptoms of bipolar disorder.

Benefits- Technology potentially offers a number of benefits for women

- Helps women communities traditionally involved with handicrafts to put their products online in the world market and thereby replacing the middle man and getting larger profit margins by selling their products online.
- Through ICT many women have gained access to valuable information such as commodity prices, health and government information they wouldn't have gained otherwise.
- ICT provides a source of income for housewives who find it difficult to find work outside their homes, while also promoting computer literacy among

women who might have little opportunity to access new technology otherwise.

- The women in distress (issues such as rape, sexual harassment, battering and dowry harassment, and eve teasing) can file complaints through e-mail and thereby avoid going to the police station.
- Women can work from anywhere and anytime and raise extra income to become more financially independent and empowered.
- Indian women are using the Internet to see horoscopes and even arrange marriages.

Limitations

- Unfortunately, the majority of women in the developing world have limited access to ICTs, which hinders them from reaping the full benefits.
- Routine power failure, poor quality of connectivity, low bandwidths are very common problems specially in the rural areas.
- Information demand is different in each village; hence great care must be taken to address the need for the location of specific information.
- Women are unlikely to use technology if the content, information, or service does not concern their needs or interests.
- Accessibility is hindered by language barriers, and a lack of content in local language. Almost 70 per cent of the websites are still in English.
- Limited awareness of the full range of opportunities afforded by ICT other than access to information.
- It is noted that poverty, lack of access and opportunities, illiteracy, including computer illiteracy, have prevented some women from using ICT, including the Internet
- Less time due to womens' domestic responsibilities

- And there are serious questions about whether countries like India, weighed down by high rates of illiteracy and illness, should spend heavily to provide villages that desperately need schools and health clinics with what most would consider a luxury.

Conclusion

Very soon we can see that Internet is going to be there in every house, just like the telephone has become a part of daily life, the internet will be there very soon. Expectations are high when it comes to ICT opportunities for women in developing countries, including new forms of learning, education, health services, livelihood options and government mechanisms. However, on a cautious note, it needs to be realized that information and communication technologies itself cannot be an answer and elixir to all problems facing women development but it does bring new information resources and can open new communication channels for the marginalized communities. As Prof. M S Swaminathan keeps saying, if you educate and empower a woman the benefit reaches the entire family. It gets amplified. The income earned by a woman goes to ensure food and nutrition for the family, education of the children and eventually development of the community.

Suggestions

- Internet cafes have sprung up quickly even in small Indian cities, these Kiosks must be run by women operators, thereby giving them an independent source of income , economic and social power
- A significant reduction in the cost of internet services will enable more women to use the internet more frequently for information seeking and sharing, education and social mobilization
- A well-placed computer, like a communal well or an irrigation pump may become another tool for development.
- Electronic information centres run by women have to be set up at the village level. These centers could provide information on market prices of agricultural commodities, weather forecasts, information on legal protection and inheritance rights on constitutional guarantees regarding womens' rights

- Important information such as income, caste, land ownership records and loan records can be computerised and connected to the district headquarters by intranet network.
- With computer training the poor women will have more possibilities of getting employment and higher income.

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