INTRODUCTION

Education of women severely lags behind that of men in many developing nations. Fewer girls go to school, tend to drop out earlier than boys, do not receive the same level of education as their male counterparts, and often choose careers that are female predominant (Kelly, 1987). Without exception, India is quite representative of these gender-biased phenomena in education. However, the recent explosion of offshore outsourcing market in India has created a new recognition regarding the role of women in technological careers. The Indian IT sector has seen a trend contrary to what most western nations are experiencing—predominance of women in IT, particularly in IT-enabled services (ITES).

India has acknowledged that extensive and intensive use of information and communications technologies (ICT) alone can help the nation develop its neglected human resources, emerge as a knowledge-based society, and participate competitively in the global trade and services. Consequently, the development of ICT has become a national issue with strong impetus from the union government in New Delhi (Choudhary, 1999). Explicit in this initiative is the recognition that to progress as an information society, women must be empowered as key players the IT sector. In parallel, two other trends have focused attention on women in the information society—a nationwide movement for women’s rights spearheaded by many non-government organizations (NGOs) and an increased awareness of corporate social responsibility. Consequently, over the last decade, there has been an increased emphasis on education and reskilling India’s female workforce. While many government efforts are targeted toward the overall upliftment of women, many grassroots level initiatives led by NGO’s and corporations emphasize technological training.

This article highlights how the intertwining of grassroots and policy level efforts can increase the pace at which a nation’s female workforce can be reskilled and prepared for a technological world. The article also addresses concerns about such rapid development and potentially challenging outcomes while making recommendations for improvement.

BACKGROUND

In many contexts, India is a representation of paradoxes. Over 44% of India’s population is below the poverty line, its per capita income is under $100, and adult literacy rate is about 44.3%. Yet, the Indian education system churns out young minds that have excellent training in math, science, and technology (MST). While only 25% of India’s urban population and 1.5% of its rural population has access to telephones, India boasts of one of the fastest growing software industries in the world.

The role of women in the Indian society remains similarly paradoxical. India was one of the first countries to give voting rights to women subsequent to emancipation from British rule in 1947 (UNESCO, 2002). The country was led by a woman prime minister for several decades, a rarity on a global scale. Religious scriptures lay particular emphasis on the power of the woman to enable a progressive society. However, while the Indian constitution grants many legal rights to women, the socio-economic status of women still seriously lags behind that of men.

There has been no dearth of government initiatives in India in the past to promote equalization of gender roles. Yet some of the most meaningful schemes have emerged only in recent years for several reasons: the IT sector has experienced rapid growth due to global sourcing, monetary compensa-
tions for IT related positions have increased dramatically, and many NGOs, women’s organizations, and corporations have become more radically involved in female participation to leverage these trends. The next few sections examine the role of these entities in the advancement of women in the IT sector.

MAIN THRUST

The function of government in India’s workforce development reflects a trend that has been observed in many western nations where the government has gradually withdrawn from the direct delivery of many programs and has increasingly relied on non-profit organizations to take on this role (Zappala, 2000). NGO’s and corporations have stepped in to implement and deliver government policies for improvement of education and working conditions.

Government: An Overall Emphasis on Girls and Women

Governments in many developing countries, including India, have been instrumental in providing funding for IT education and training to encourage everyone, not just women, to become technically sophisticated. Women have, however, seized these opportunities willingly because IT work presents an opportunity for women to compete with men cerebrally—rather than physically (Sneddon, 2004). One such initiative in recent years has been making education pervasive in all households. While not an IT initiative, the most common educational policies and goals are not intended to help one group of users more than any others (Klein, 1987). In year 2000, the government initiated a $250 million national program with the objective of enrolling all children between 6-14 years of age in the educational system by 2010 (UNESCO, 2004). Subsets of this program, National Program for the Education of Girls at the Elementary Level (NPEGEL) and Kasturba Gandhi Swantantra Vidyalay (KGSV) focus on bringing girls into the education stream. This program is aimed at developing model elementary schools in 21 states with an emphasis on providing benefits for underprivileged and under represented girls in education. This is a start to overcoming one of the most serious barriers to representation of women in the workforce in India—increased and improved education for girls. As a part of these umbrella reforms in the Indian educational infrastructure, the government has established proactive policies for girls’ enrolment in science, engineering, and technology (SET) courses. Computer literacy excellence awards for schools that demonstrate promotion of technological education have been initiated to encourage schools and colleges to examine and improve their IT curricula.

The residual effects of widespread women’s movements are evident in the declaration of Year 2001 as the “Women Empowerment Year.” While the general objective of this initiative was to provide self-awareness and generate an environment conducive to development of self-confidence and assertiveness among women, a significant portion of this initiative was devoted to women in technology. Specifically, some plans related to:

- Establishment of technology parks
- National assessment of technology drudgery reduction, tools and implements income generation for women
- A traveling exhibition of women in MST

The establishment of the Ministry of Communications and Information Technology (MIT) has provided a significant impetus to the development of India’s IT workforce. The multitude of projects undertaken by this ministry includes:

- Establishment of a task force with the intent of setting up a long-term strategy for development of a strong IT workforce
- Provision of employment oriented training for educated youth to meet the shortage of trained IT professionals
- Development of curricula in cyber security and IT systems management
- Setting up ERNET, a network for academic and research institutions

The ministry has also instituted the “IT Super Power Group” to promote improvement of IT workforce whose immediate concern is to address issues regarding women in technology and technology development in rural areas. While MIT has been