A Developing Country Perspective on Women's ICT Adoption

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INTRODUCTION

The explosive growth of information and communication technologies has become a worldwide phenomenon. However, merely countries in the West as well as a growing number of countries in Southeast Asia have become largely connected, whereas the majority of people in the developing world have not yet been able to take advantage of the new opportunities ICTs provide. Especially in developing countries, Internet access remains a luxury of small groups of elites, and even the use of old-fashioned telephone lines remains a luxury for a minority of the people. While the lack of availability of technological infrastructure looms large, the basic lack of education and technical skills impedes further potential for the large-scale adoption of ICTs (e.g., Cawkell, 2001).

The opportunities of ICTs are commonly discussed in terms of business opportunities—as a means to enhance economic competitive position at either the level of the firm, region, or nation. This entails a narrow scope. ICTs have the ability to enhance the quality of life in a broader sense as they have the potential to improve interpersonal communication, and moreover could allow for the social and political empowerment of ordinary people (e.g., Hafkin & Taggart, 2001). This implies a direct downside as well: Those people with significant access to ICTs and thus information resources are in a position to increase their control over social, political, and economic arenas, making nonusers further marginalized and excluded from not only economic life, but social and political life as well (e.g., Cawkell, 2001; Morales-Gomez & Melesse, 1998).

In this regard, Forestier, Grace, and Kenny (2002) have found that, historically, telecommunications rollout has actually increased inequality because only the wealthy can afford implementation and use. Nevertheless, the authors also find that both telephony and Internet access could be a force for the convergence of incomes and widespread improvements in quality of life in the future, as costs of ICTs are decreasing and hence access becomes a possibility for the poor as well. Nevertheless, in the case of the Internet, the absence of policy initiatives with regard to access coverage, training, and content development aimed specifically at the poor make it likely that this new technology will also be a force for further income divergence like telecommunications rollout has traditionally been (Forestier et al., 2002).

BACKGROUND

While more awareness is being raised concerning this digital divide, problems are often expressed in the number of Internet connections or the extent of ICT deployment at the country level, which does not provide us with adequate insight into the factors within such countries leading up to the challenges (e.g., James, 2005). A variety of specific factors influencing the digital divide and access to ICTs in developing countries needs significant in-depth exploration if we want to change the situation.

For example, it is well known that most countries face a significant urban-rural digital divide: In urban areas and especially major cities in developing countries, typically a significant number of phone lines is deployed as well as means for access to the Internet, but rural areas often lack basic infrastructure. Nevertheless, while the case has been made that improved telecommunications or access to ICTs will permit improved cost benefits for rural economic activity, these discussions often neglect the impact that urban-rural connectivity could have on local trading in rural areas and the possible danger for the

destruction of relatively self-contained rural economies (Samarajiva & Shields, 1990). Thus, while ICT may provide great benefits, its introduction may also induce further dependencies of the poor on the wealthy.

Alongside this rural-urban divide, we find that among the least connected in the world are women in developing countries, in particular those women living in rural areas. Moreover, the majority of women are located in rural areas, situating them in the deepest part of the digital divide. Problems for the integration of these populations in the information era depend not only on the lack of infrastructures and the high costs of ICT deployment, but even more so on illiteracy, unfamiliarity with the dominant English language in Internet content, unfamiliarity with the use of ICTs, and the lack of availability of software and content suitable for use. People's information needs in developing countries may be very different from people in Western countries, depending on social and cultural (work and household) practices.

While these issues provide a major challenge for appropriate ICT introduction and uptake, James (2005) shows that it seems often forgotten that even though individual access is very limited in developing countries, a remarkable number of local innovations have been made available to some 10 million people within developing countries. While many of these people are illiterate, have limited skills, and live in rural areas, significant progress is being made. Therefore, James (2005) argues that national governments and foreign donors need to pay less attention to providing individual access facilities and need to focus more explicitly on ways to enhance indigenous rural innovation systems devoted to finding relevant and cost-effective applications of the Internet.

From this it follows that social and cultural context provide the backdrop against which ICT implementation for any particular group of people, and thus indeed for women too, is appropriated. This means that while women's adoption of ICTs would provide a means for sociocultural empowerment, at the same time we need to acknowledge that these sociocultural issues, and thus women's position and role in society, will provide constraints for the adoption of new technologies. Thus, we need to understand the very specifics of women's lives in their particular communities in order to be able to change the situation in an appropriate manner.

In order to illustrate some opportunities and constraints for implementing ICTs in line with women's social and cultural context, a short overview of women's lives in Bangladesh will be provided along with background information on current ICT implementations.

THE CASE OF BANGLADESH: WOMEN'S USE OF VILLAGE PHONES

Bangladesh is one of the least developed countries in the world,[1] facing very high poverty levels. While it is one of the most fertile countries on earth, annually about one third of the country gets flooded during the monsoon season. The country has a high population density and is currently inhabited by about 144 million people, of which nearly two thirds are employed in the agricultural sector.[2]

The use of ICTs in Bangladesh is rapidly increasing, and government initiatives and policies on ICT have been in place for already over 20 years.[3] However, as explained by Bhuiyan (2002), while ICTs were introduced a long time ago, the majority of computer installations currently are significantly underutilized; moreover, the functions for which they are being used remain limited, partly due to the lack of people with computer qualifications, skills, and experience. The additional inadequate local market for hardware and software development makes installations vulnerable. Also, the lack of understanding at senior levels of the potential of these already implemented ICTs hampers further appropriate uptake. Finally, the out-of-date telephone systems and the erratic power supplies restrict further development of ICT potential (Bhuiyan, 2002). Nevertheless, increased deployment of ICTs in Bangladesh has been argued to be able to stimulate socioeconomic growth: It could allow not only for market growth and the creation of an efficiency-oriented economy or administrative restructuring, but for community development, personal growth and self-reliance, and the integration of women into the mainstream of development planning as well (Bhuiyan, 2002).