Information and Communication Technology for Education in India and South Asia

Essay IV

Gender Equity and the Use of ICT in Education

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Executive Summary

This essay on **gender equity and the use of ICTs in education** looks at how ICTs are being used by girls and women in the education space in the focus countries. Gender disparity is a critical issue in all focus countries, except perhaps the Maldives and Sri Lanka to an extent. Most countries in the region are characterized by low female literacy levels, lower participation in the labor force, and lower representation in the administrative and political arena. This essay discusses the potential of ICTs for ensuring gender equity as well as the policy level decisions required to mainstream gender in the initiatives and schemes formulated by the government. It profiles a few initiatives in the different focus countries where ICTs are being used either to promote education among girls and women or to improve their livelihood chances.

Gender Equity and the Use of ICT in Education

Recognizing the significance of education in the development of valuable Human Capital, investing in appropriate infrastructure for providing quality education to all is presently high on the policy agenda for India and the other South Asian countries. However, focus on gender-equity enabled investments is alarmingly lagging in this region. There are many arguments in support of policies leading to investment in education for girls and women. For example, a first order analysis which considers women to be equal to men in their potential contribution to the economy implies a huge untapped reservoir of talent in developing countries. Further arguments on the impact of such investments can be found below:

- Investment in female education leads to increased labor force participation and a subsequent expansion of the economy.
- A variety of positive health outcomes for women and their families are known to flow from increased education.
- Education generally leads to lower fertility rates as well as lower child mortality.
- As primary caregivers, women have a key role in the intergenerational transmission of knowledge.

In South Asia, the level of gender disparity in education varies across the region. A fairly rough idea can be acquired from the following figures, which depict the latest data on Literacy Rates and Gross Enrolment Ratios in Percentage of Population.
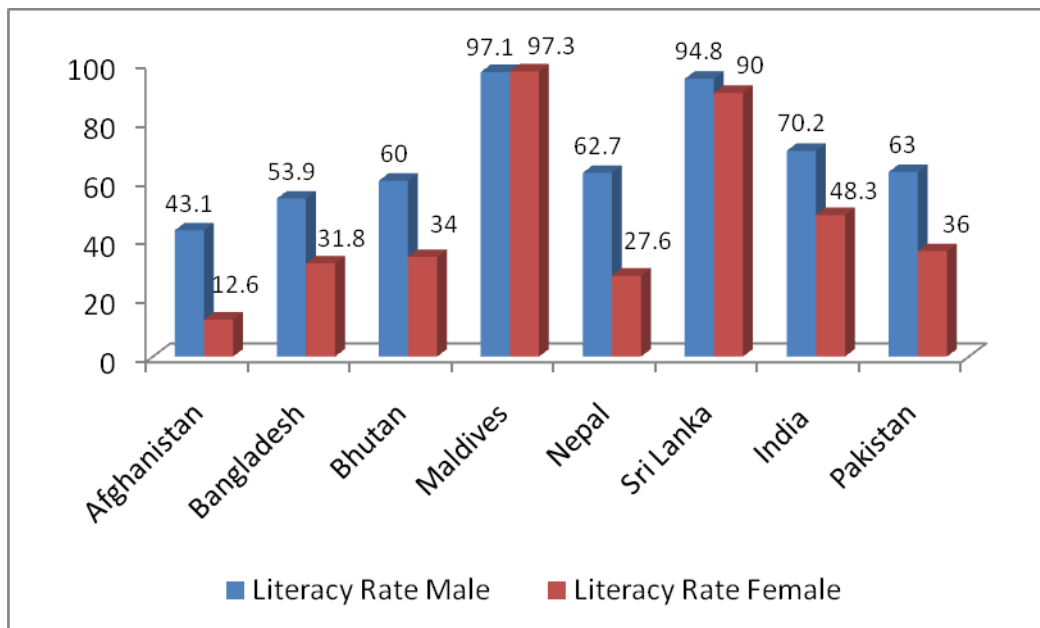
Source: UNICEF, www.unicef.org, * **(2000–2007):** Data refers to the most recent year available
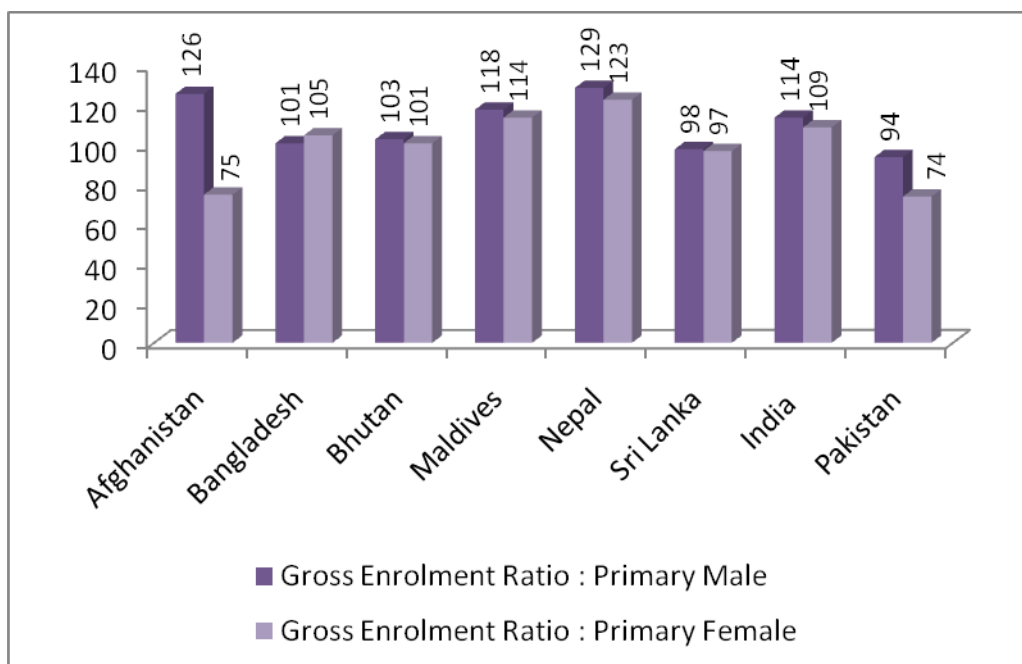
Source: UNICEF, www.unicef.org, * **(2000–2007):** Data refers to the most recent year available

In Sri Lanka, women and men hold relatively equal status due to extensive social welfare programmes and the political empowerment of women, whereas in Afghanistan the gender disparity is extremely wide in addition to the fact that the rate of literacy level itself is very low in the country. On the other hand in India, where education deprivation of girl child is still a harsh reality, the literacy rates and health status have generally improved in the country; however, these improvements vary widely across the country. The Government and NGOs are active in

implementing programmes that focus on women's empowerment through education, health and livelihood security.

This gender disparity can primarily be attributed to complex and deeply embedded cultural values that tend to discourage women's active participation in personal and professional development. Furthermore, curricula and textbooks often reinforce gender stereotypes. Thus, gender mainstreaming across syllabi and in government policies and implementation plans needs to be appropriately addressed in most nations. It is clear that no education or communications process will be successful without a large-scale change in women's societal position.

Gender Mainstreaming for ICT in Education

ICTs have the potential to alleviate or remove some of the barriers or constraints that prevent women and girls from accessing educational opportunities, such as illiteracy, poverty, time scarcity, sociocultural factors, mobility, and relevancy, leading to women empowerment and gender equality. But there are additional factors that prohibit women from ICT usage such as restricted access to the technology, high costs and lack of skills and information. However, the lack of participation of women in the use of, and access to, ICTs can primarily be attributed to social behavior, culture, and religious traditions, for example:
- Cultural and social attitudes are often unfavorable to women's participation in the fields of science and technology, which limits their opportunities in the area of ICT.
- Women are often financially dependent on men or do not have control over economic resources, which makes accessing ICT services more difficult.
- Allocation of resources for education and training often favors boys and men resulting in lower levels of literacy and education, including training in languages which are predominantly used in ICT platforms and the Internet.
- In some societies, women are barred from public places making access to community telecenters difficult for them.

Unless explicit measures are taken to address the constraints girls and women face, any attempt to formulate ICT as a tool for knowledge and information dissipation for the underprivileged may increase gender disparities and lessen the potential impact of ICT in education. Thus to bridge the gap of Gender Digital Divide, appropriate policy frameworks to be established at the national level to address the issue of Gender Mainstreaming along with proper research work on the issues of Gender, ICTs, and Education.

Policy Framework for Gender Mainstreaming

To overcome the barriers to the access and usage of ICT by women, certain strategies need to be adopted on the following lines:

i. Ensuring a gender perspective in ICT-based projects
ICTs are generally regarded as gender neutral, but it is not true essentially. Given the persistent gender inequalities and unequal power relations in South Asian region, substantial disparities in

access, use and regulation of ICTs exist across societies in this region and the development projects need to address these disparities with a separate gender perspective and not as a single approach for both men and women together.

ii. Ensuring adequate and sustainable technology transfer

For any community project to sustain it is important to generate sufficient demand for ICT which can be attained only if the community learns more about ICTs and the array of services that they can provide leading to personal benefits and a better life. Thus, it is important that adequate transfer of know how should accompany technology transfer. Moreover, for sufficient demand generation for a sustainable working model, active participation is required from both men and women, and to seek active participation from the local women folk such initiatives should explicitly address their needs. A particular example in this regard can be cited as follows:

Grameen Bank, Bangladesh

In Bangladesh, the Grameen Bank has lent small sums to over 20,000 women to buy cellular phones to use in "pay phone" businesses, which has proven to be a successful model in economic and social security for poor women.

This case reflects the adoption of mobile technology by rural women against the benefit of social security.

e-Lanka Project

The e-Lanka project uses e-government applications in education services and uses them accordingly to promote women's skills training. A voucher scheme initially grants women free access to rural telecenters; they then pay a few cents per hour to make the centers financially sustainable.

iii. Designing technologies appropriate to women's needs

For women to adopt ICTs in the developing counties of South Asia, the technology should be made suitable to the given social and cultural contexts of the society. Ideally women should define their own agendas for information and communications technologies, including not only computers, cell phones and digital video, but even community networks, radio, and TV. But for that, it is crucial to understand women's experiences with ICT, the kind of technology women want and how they want to use it. There is definitely a need for research on the classification of "women-centered" technology. Until ICT tools are tailored to the specific needs of women, they will never develop a sense of ownership for technology and will never be able to overcome the barriers to access and use of ICTs.

iv. Ensuring gender-sensitive ICTs policy and regulation.

Adequate policy making and regulation needs to be formulated at the national level for overcoming the persistent barriers to women's access to and use of ICTs as well as making sure that ICTs benefit women equally as men, for example:

Open University of Sri Lanka

The Open University of Sri Lanka trains primary and secondary school teachers in the use of

gender-sensitive materials in the school and teacher education curricula and offers a number of computer programmes and courses that use gender-sensitive language.

Girl's schools in Bangladesh

The Government of Bangladesh aims to ensure that high school girls are provided with computer access in ICTs and Education programme announced in July 2002. Girls' schools are to be given priority in a programme that will provide 10,000 computers, along with Internet connections, to schools at the secondary level.

Girl's education programs in India

The Government of India has embarked on a vision to reduce the gender divide in primary and secondary education by setting the goal of "Education for Women's Equality" advocated by the National Policy of Education as per the Tenth Five-Year Plan (2002–07). Girls belonging to the segment of disabled, ethnic minorities, or underprivileged are brought under the scheme of Inclusive Education in (2006–07). The Mahila Samakhya and the SSA programmes to provide quality education for girls between 6 and14 years has increased the literacy rate of girls from 15.35 percent in 1971 to 54.5 percent in 2007. In the past two decades, women's participation in primary, middle and secondary level has increased considerably. The District Primary Education Programme (DPEP) of the Central Government has reduced dropout rates to less than 10 percent and reduced gender gaps to less than 5 percent. One of the main objectives of the Sarva Shiksha Abhiyan (2001) is to bridge gender gaps in primary and secondary education by 2010. Since even after secondary education girls may not continue, "Extension Education," a policy providing job related knowledge, was introduced for those unable to proceed with formal secondary level. The National Literacy Mission (NLM) was set up in 1988 aimed to mobilize dropouts, introduce mass and functional literacy and involve the community in educating women to the Secondary level.

To integrate gender-sensitive concerns in policy-making and regulation, policy-makers need to gather information on various aspects such as:

- Statistical Data on women's use of ICTs, their role in development, their participation in science and technology in general, and their access to education
- Case studies on projects that take into account gender-related concerns are more successful than those which do not
- Review of projects demonstrating that women do not benefit when their concerns and situation are not specifically taken into account
- Examples and illustrations on how women could and should be better included in ICT projects

Gender-Focused Research and Analysis

In a research study conducted by APWINC (Asia Pacific Women's Information and Network Centre) on the ICT status of some Asian countries, it was noted that there was a paucity of available data, especially on gender-related data. This same situation was encountered by the COL (Commonwealth of Learning) for their project on women and ICTs for open and distance learning. And a similar situation exists in all the South Asian countries; there a lack of hard data around the issues of gender disparity and gender-sensitive issues for ICT and education. Thus commitments on

research work are necessary on gender-related data for ICT and Education, and such commitments needs to be an institutional imperative. As an example, one of the research priorities of the Open University of Sri Lanka is to address the role of gender in student enrolment and performance.[1]

Therefore, to bridge the "disconnection" between gender experts and policy-makers, it is necessary to use findings based on qualitative research and raise the visibility of qualitative and feminist researchers to address the lack of understanding of gender-related issues and their social implications.

The Gender Evaluation Methodology[2] (GEM) is a tool developed by APC WNSP for gender analysis. It is basically a guide to integrate gender analysis to evaluate initiatives that use ICTs for social change. Apart from evaluation, the tool can also be used in the project planning process to ensure the integration of gender concerns. The following GEM projects can be cited from South Asia:

Anupama Saxena, Head, Department of Political Science and Public Administration and in charge Director of Women's Studies and Development Centre of Guru Ghasidas University, Bilaspur, Chhattisgarh, India

Anupama Saxena decided to conduct an evaluation research on the E-Gram Suraj project or the e-good governance project conducted at village level in India. A total of 64 village panchayats were selected for this research. The evaluation is aimed at examining what is the extent of rural women and men's participation in this e-good governance project, especially among the heads of the Village Self Government Units, and to also examine if the introduction of ICT through the Government of India's E-Gram Suraj project has been effective in changing the lives of women and men in these villages.

Development Research Network (D.Net), Bangladesh

D.Net is using GEM to assess its Computer Learning Programme, which has been in implementation since 2004. The Computer Learning Programme is one of D.Net's major programmes, which seeks to empower underprivileged youth in Bangladesh through computer literacy. Through this programme, D.Net is operating 80 computer learning centers in collaboration with local educational institutions and community groups. The Computer Learning Programme was evaluated in 2006, and the findings showed the need to interrogate more deeply the gender dimension of the project as responses from both girl and boy students were quite different. In 2008, D.Net decided to use GEM to look more closely at the behavior change of girl and boy students as a result of their participation in the Computer Learning Programme.

PAN Localization Project (PANL10n) Regional Secretariat is Based in Pakistan

The PAN Localization project is in collaboration with the GEM II project to determine how gender and ICT issues faced by localization initiatives can best be identified and addressed in the planning,

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[1] Uma Coomaraswamy, "Barriers to Information and Communication Technologies Encountered by Women: Country Presentations – Sri Lanka," (Vancouver: Commonwealth of Learning, 1998).

[2] http://www.apcwomen.org/gem/

monitoring and evaluation of localization initiatives. The PAN Localization project is using a gendered Outcome Mapping framework, and will be exploring what would be the most suitable complementary evaluation methods with the GEM II project team.

Impact of ICT in Education on Gender Equity

This section elaborates instances of the impact of ICT in Education on Gender Equity in the South Asian region. The most compelling cases regarding the potential of ICTs to improve access to education for girls and women is found in cases of informal learning. The following examples indicate that ICTs could become tools for women's active participation in improving their situations. Simple access to information and improved communications can end the isolation of women and promote improved health, access to reproductive services, economic growth as well as alleviate poverty.

The Information Village project, Pondicherry, India

The Information Village project in Pondicherry cites significant educational results from their project including support to women's small business development. Women's self-help groups use the system to contact other women's groups with which to share their experiences. One innovative use of ICTs is the development of a multimedia presentation and multimedia flash cards to provide gynecological information to reach women who are prevented by cultural attitudes from discussing their health problems with male doctors and younger females.

Radio Education for Afghan Children (REACH), Afghanistan

Radio Education for Afghan Children (REACH) uses radio to broadcast educational programs to children who have few opportunities to attend school. A major challenge was to develop programming which would stand alone, with no teaching, tutoring, or print support. While not a substitute for formal education, it broadcasts informative, interesting, and thought provoking programs to children and adults on basic subjects such as science, social studies, mathematics, grammar, and spelling. Programs for adults concentrate on life skills, such as dangers of landmines, adjustment after the civil war, and the role of women in Afghan society.

REACH was never conceived as a substitute for school, but as a dynamic tool designed to respond to children's wider educational needs. Programs are developed based on participatory rural assessment with focus groups made up of men, women, girls, and boys. Program ideas from these meetings are then further developed with experts in the topics covered, and then sent to the focus groups for feedback.

The role of women and programs focusing on women's concerns are a major part of REACH programming, including sessions on family and children's health, home economics, and women's rights in the family and society.

Key Learnings

In India and South Asia, cultural values, traditional beliefs, financial dependence on men, and restrictions to entering public places are some of the many reasons for gender disparity. A key point to note when understanding gender inequality in Education in South Asia is that even when gender parity in enrolment is achieved, discrimination toward women still exists as girls are discouraged from choosing subjects at the secondary and tertiary levels which would lead to higher paying career opportunities.

ICT tools provide an opportunity to overcome some of these key barriers. However, initiatives have to be designed specifically for women and awareness needs to be generated among women on the advantages of ICTs and their potential to address specific problems faced by them. Empowering women through access to information is a critical requirement, as experience in the South Asian region has often shown. For example in Pakistan recently an animated public services campaign was run by a private channel, following the passage of the sexual harassment Bill, which emphasized that women are now supported by law to complaint against any form of sexual harassment and that they may report such incidents to the police, courts, an ombudsman or a mandatory committee in case of a corporation. This awareness raising is an important aspect, as quite often there is no reliable information on available options for women.

It is encouraging to see that in an effort to achieve the MDGs and Education for All targets, South Asian countries have made serious efforts to overcome gender disparity. In situations where attending traditional schools is difficult or almost impossible, ICT has been used to bring education to the doorstep of the traditionally deprived gender. Mobilink, Pakistan in partnership with United Nations Educational, Scientific and Cultural Organization (UNESCO) has launched a recent initiative for providing literacy to adolescent girls using mobile phones. ICT has also been used to overcome poverty and make women financially independent. The government of Bangladesh has provided access to ICT for school girls at the secondary level. The Self Employed Women's Association (SEWA) in India is an initiative to encourage women to become fully employed and self sufficient. SEWA's initiative to start Rudi no Radio, the first community radio station in a village near Ahmedabad has made hundreds of women gain access to knowledge and information on career opportunities, education, health and sanitation and so on.

Encouraging women to use ICT remains however a challenging task since technology uptake of women and girls tends to be low in South Asia, even in environments where computers are available; since it is generally the boys who are encouraged to use it. To ensure that ICT is used efficiently to deliver education and to overcome the gender gap, differential attention is needed for boys and girls in ICT schemes in Education. Positive discrimination or Affirmative Action in favor of girls, in provision of access to ICT facilities in schools needs to be explored in many of these traditional societies.

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