Information and Communication Technologies in Indian Education System

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ABSTRACT

In this paper, the role of Information and Communication Technology (ICT) and its challenges and opportunities in Indian education sector has been highlighted. Towards the end, the paper also presents a comparative study of ICT awareness and penetration among south Asia countries. Various reports were collected from difference government and private domains and the facts are summarized in this paper. The paper has succinctly reviewed the status of ICT in Indian education system. The research is based on the compilation of information available till 2010.

Keywords: Indian Education System, Information and Communication Technology (ICT), Inter University Consortium for Technology Enabled Flexible Education and Development (IUD-TEFED), Sarva Siksha Abhiyan, Shiksha India

1. INTRODUCTION

Information and Communication Technologies (ICTs) are widely believed to be the important potential levers to introduce and sustain educational reform as well as an useful aids to both teaching and learning. However, despite evidence of increasingly widespread use of ICTs in education initiatives around the world, there is little guidance available for policy-makers and administrators to successfully implement ICTs in developing countries. The last decade has seen an extremely rapid proliferation of Information and Communication Technology throughout the world. ICT has touched every dimension of lives. ICT greatly facilitate the acquisition and absorption of knowledge in every aspect of life. ICT is also offering unprecedented opportunities to enhance educational systems, improve policy formulation and execution, and widen the range of opportunities for all stakeholders and particularly for the poor masses. But, one of the greatest hardships endured by the poor peoples in undeveloped countries is their sense of isolation. Thus, the new communications technologies promise to reduce that sense of isolation, and to open access to knowledge in very affordable ways (World Bank, 1998). In

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the other hand, globalization and technological change-processes have created a new global economy, which is “powered by technology, fueled by information and driven by knowledge.” The emergence of this new global economy has serious implications for the nature and purpose of educational institutions.

Today, India actively promotes the use of information and communication technologies (ICTs) in the formal education sector. But it has in the non-formal sector for more than 40 years. In past India has tried to implement ICT in formal education with varying degrees of success. In fact, since the early 1950s, Indian policy documents have identified the need to use all media for promoting development in education. The subsequent policy and plan documents on education, prepared from time to time, have chalked out a role for technology applications, especially in the non-formal education sector. Today, the country’s decision-makers, at both the central and state levels, have chosen to explore the use of newer computer and Internet based ICTs for education. The launch of a dedicated education satellite (EDUSAT) in 2004 with high capacity (up to 5000 FM community broadcasting stations) for use by the educational institutions has increased the use of ICT in education. But the actual revolution starts as a result of a policy announcement made by the Prime Minister of India in the First National Conference of Information Technology Ministers. As the result of this announcement, task Force on Human Resource Development in Information Technology was set up under the aegis of the Ministry for Human Resource Development. Through a process of consultation among different stakeholders and institutions, the task force report set out major recommendations to develop the core competencies of the country to develop innovative technologies for ICT implementation. This represents the actual master plan that India has in place for the use of ICTs in education, human resource development and in the capacity-building of institutions.

The paper is organized as follows: Section 2 discusses the importance of ICT in education. Section 3 outlined the key challenges for ICT implementation in education. Section 4 discusses the issues the implementation of ICT in Indian education sector and the comparative study of ICT penetration among south Asia countries has be presented in Section 5. The paper concludes with conclusion in Section 6.

2. ICT IN EDUCATION

ICTs are a potentially powerful tool for extending educational opportunities, both formal and non-formal education. It can reach peoples in every part of society namely, scattered and rural populations, groups traditionally excluded from education due to cultural or social reasons, and the elderly, as well as all others who for reasons of cost or because of time constraints are unable to enroll on campus. ICT has the following excellent features:

• **Available anytime, anywhere:** One defining feature of ICTs is their ability to transcend time and space. ICTs make possible asynchronous learning, or learning characterized by a time lag between the delivery of instruction and its reception by learners. Online course materials, for example, may be accessed 24 hours a day, 7 days a week. ICT-based educational delivery (e.g., educational programming broadcast over radio or television) also dispenses with the need for all learners and the instructor to be in one physical location. Additionally, certain types of ICTs, such as teleconferencing technologies, enable instruction to be received simultaneously by multiple, geographically dispersed learners (i.e., synchronous learning);

• **Remote access:** Teachers and learners no longer have to rely solely on printed books and other materials in physical media for their educational needs. With the Internet and the World Wide Web, a wealth of learning materials in almost every subject and in a variety of media can now be accessed from anywhere at any time of the day and by an unlimited number of people. This is
Availability Estimation of Demand Buses as Human Transportation System, Using Self-Organizing Map
www.igi-global.com/article/availability-estimation-demand-buses-human/58077?camid=4v1a