

Chapter 10

ICT in Arab Education: Issues and Challenges

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ABSTRACT

Developing countries are facing many challenges today, such as globalization and the information and communication technologies revolution, as governments and societies are coping with change. Technology adoption in the classroom setting, as well as in other formats of education across the world in the past several years, has resulted in the realization that the benefits accrued from these technologies are not mainly related to getting access to new technology, but to integrating technology in the holistic framework of curriculum, teacher competencies, institutional readiness, and long term financing. Arab governments have rapidly established a great number of schools and universities in recent years. Most programs focus largely on the technology itself, placing very little emphasis on the practical implications of the use of ICTs to meet broad educational objectives. Also, amidst the emerging digital divide, it is important to note the prevailing gaps between countries within the Arab world. There are marked variances between countries in their efforts to adopt ICT tools and grow their networked economies. The chapter focuses on knowledge society and education and ICT challenges faced by Arab countries.

INTRODUCTION

ICTs stand for Information and Communication Technologies and are defined as a diverse set of technological tools and resources used to communicate and to create, disseminate, store, and manage information. These technologies are inclusive of computer, internet and broadcast technologies like television, radio and telephony. There has been a lot of focus on the use of comput-

ers to increase the efficiency and effectiveness of education at every level and in non- formal and formal settings. But the older technologies like television and radio have longer and richer history as instructional tools than newer and faster developing technologies like computers and the internet. For example, television and radio has been used as instructional tool for delivery of education in the open and distant learning mode in both developed and developing countries for

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the past 60 years rather than print and electronic media which are the cheapest and more accessible in the present times. Although the internet and computers is proliferating the world over, in the developing world their use is still in its infancy due to limited infrastructure and attendant high cost of access. In many countries a mix of technologies are used for delivery of education for example, the Kothmale Community Radio Internet uses both radio broadcasts and computer and Internet technologies to facilitate the sharing of information and to provide educational opportunities for rural community in Sri Lanka. The Open University of the United Kingdom (UKOU) which was established in 1969 (the first educational institution in the world wholly devoted to delivery of education only through open and distance learning mode) still relies heavily on print based materials supplemented by radio and television and very recently online programming. Similar to this, the Indira Gandhi National Open University in India combines the use of print, recorded audio and video, broadcast radio and television, and audio conferencing.

Although most commonly associated with higher education and corporate training, e-learning is increasingly gaining acceptance at all levels of education through the use of information network—the Internet, an intranet (LAN) or extranet (WAN)—whether wholly or in part, for course delivery, interaction and facilitation. Another term that is gaining importance is Blended Learning. This refers to learning models that combine traditional classroom practices with e-learning solutions. An example of this could be that students in a traditional classroom can be assigned print and online materials, are subscribed to class email list and have online mentoring by their teachers through chat. Conversely, complete web based programs can be enhanced by periodic face to face interaction.

Education is increasingly becoming a defining element in the knowledge society. Education along with ICT, information, knowledge and innovation are now seen as the foundations of the new global

knowledge economy. Over the past twenty years, globalization and technological changes have worked in tandem to create a new global economy powered by technology, fueled by information and driven by knowledge. Consequently this new global economy has serious implications for the nature and purpose of educational institutions.

However the existence of the digital divide, which is the gap between those who have access to and control of technology and those who do not, means that introduction and integration of ICT's in various levels of education and various modes of education will be the most challenging. Failure to meet the challenge would further widen the knowledge gap and result in deeper social and economic inequalities. In order to improve access to education and quality of education, creative and innovative applications of ICT in educational technologies could be used to accelerate education reform process.

The explosion of Internet in 1990's and also the simultaneous use and large scale proliferation of low cost computing devices and diffusion of computers throughout society resulted in ICT and education wave. Most countries focused on building policies and projects around technology driven education designed to prepare students for information age. However, most initial programs focused on the narrow objective of ICT literacy, focusing mainly on technology itself rather than incorporation of ICT to fulfill broader educational objectives. Most programs of this nature, which were often initiated in an attempt to address issues related to the 'digital divide', did not take a holistic approach to ICT, failing to link the educational goal of expanded ICT use to associated reforms of the curriculum, student assessment system, pedagogical approaches in the classroom, and teacher training. Technological use in education is limited by more stress on acquisition of latest technology rather than application and integration of technology. Although such attempts may give success for short term, the real use of application of ICT in education needs to have a holistic approach for any long term gain.

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