

# Chapter 1

## Current Aspects and Prospects of ICT in the Arab Higher Education Sector: Literature Review

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### ABSTRACT

*This chapter offers a brief overview of the current status of formal governmental support for technology integration in the higher education sectors in different countries in the Arab World, in addition to presenting some major initiatives started and implemented in some of the Arab states. Several distinguished initiatives in the Arab countries are reviewed to reflect on the strategies in higher education institutions. The policies and strategies that regulate technology implementation in these countries are described. Analysis of strengths, weaknesses, opportunities, and challenges is conducted. Implications are drawn from the different experiences. The chapter suggests solutions that are required to overcome the weaknesses by presenting thoughts for creative improvements in the future with emphasis on training and infrastructure aspects. Moreover, solutions and recommendations as suggested by the research are summarized in fields of implementation in education.*

### INTRODUCTION

Information and Communication Technologies (ICT) become an important part of citizens' life in the Arab World where Internet users were put at (28.5) millions in 2007 with the highest growth rate specifically in the Gulf region where income is high enough for computers to become more

affordable than in other countries. Despite this, none of the Arab states was among the top (20) countries in the world in terms of users' number (Said, 2007). In addition, the use purposes were humble and are limited to newspaper reading and public services. Mobile technology users, on the other hand, were at (160) millions with little access to Internet due to its high costs and lack of wireless

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connections. Studies show that impediments such as: lack of infrastructure, content's low quality, lack of legal frameworks, and censorship systems obstruct the optimal use of Internet (Said, 2007).

In this context, Arab higher education (HE) institutions attempt to lead the educational field towards efficient application of ICT both academically and socially. Universities' efforts in this regard show implementation of online education depending on their own resources or by signing deals with partners such as Microsoft and Intel, and local private institutions. For instance, learning management systems such as: WebCT and Moodle are installed in many universities. Training workshops are offered to faculty members and teachers in Arab HE institutions by different foundations and societies including the UNESCO (Guessoum, 2006). Studies show that challenges to ICT the effective implementation in Arab HE can be summarized in the lack of: ICT infrastructure, culture, leadership and e-learning strategy, local content, copyright legalities, awareness among instructors and learners. Regardless of these challenges studies show that there seem to be bright futuristic opportunities into two main categories: business opportunities and the flexible learning environments (Abdelraheem, 2006).

## **BACKGROUND**

In this section, examples of the extensive Arab countries' efforts in terms of adopting ICT will be presented to highlight the current status in this field. The following description focuses on each country's government initiatives establishing ICT in their respective countries and what this looks like for the higher education institutions. The countries are presented in four distinctive regions that include the Gulf, West Asia, and North African countries respectively. It is important to note that the following summary is not comprehensive, but rather offers an overall idea of some of the important aspects in each country.

## **Gulf Countries**

The Gulf countries are made up of the independent countries of Bahrain, Saudi Arabia, Kuwait, the United Arab Emirates, Oman, and Qatar. In all the Gulf countries, the respective governments have organized a variety of approaches to establish ICT in higher education.

In Bahrain, the 2007 issued e-government vision of Bahrain, emphasizes its commitment to provide all government services that are integrated, best-in-class and available to all through their channels of choice helping Bahrain transform as the finest country in GCC to visit, live, work and do business. The vision has five key elements: (1) leadership where the kingdom aspires to maintain and improve upon its position as a regional leader using leading edge technologies; (2) Services focusing on the provisioning of services to customers, and in this respect works towards electronic enablement of all key services; (3) integration by redesigning processes in a customer-centric fashion to interact with one 'government' rather than multiple agencies; (4) availability to all by ensuring effective delivery of applicable government services to all, irrespective of their education, nationality, age and income; and (5) diversity of choices by providing customers multiple channels for availing government services (KOB, 2007). In 2004, the University of Bahrain, in cooperation with a telecommunication company, has established an e-Learning Center to disseminate e-culture among its faculty members and gradually transfer the academic programs and curricula to e-programs. The center initiative is described later in the paper in more detail.

In Saudi Arabia, the Ministry of Communications and Information Technology has prepared a national ICT plan in 2005 that outlines a long-term vision for ICT in the kingdom and a five-year plan to implement the vision. The long-term vision is composed of seven overarching objectives and a set of implementation policies. The main feature of these suggested items is their compre-

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