

## Chapter 8

# ICT Applications in Arab Education Sector: A Cultural Perspective

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### ABSTRACT

*The far-reaching impact of the emergence of new applications in the field of Information and Communications Technology (ICT) has been evident in individuals, society, and business over the past two decades. However, educational organizations have only marginally gained benefits from such technologies until new information system and applications were designed and developed specifically to meet the needs of such organizations. This novice system has assisted both primary education functions and supporting enterprise functions such as finance, human resources (HR), and procurement.*

*Although technology adoption in education is generally viewed positively by educators, the shift in technology adoption by educational organizations, from simple class-resources and learning aids to a much more complex and sophisticated information systems, represent a major challenge to cope with, especially to many educational organizations in the Arab region, while the role and impact of culture on the outcomes is yet to be verified. Thus, this chapter examines the role and impact of local culture on the adoption and utilization of new information systems and technologies to enhance core educational functions and enterprise support functions within Arab educational organizations.*

### INTRODUCTION

The increasing interest in Information and Communications Technology (ICT) applications in the Arab education sector is thought to be linked to, as well as resulting from, a general trend of

openness, transparency and reforms which are all associated with ‘globalization’. From an earlier perspective, Held, McGrew, Goldblatt, and Parraton (1999) defined globalization as, “a process fueled by, and resulting in, increasing cross-border flows of goods, services, money,

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people, information, and culture” (p.16). Later, the concept was perceived as an umbrella term for a complex series of economic, social, technological and political changes which are seen as increasing interdependence and interaction between people, cultures, states and companies in disparate locations (Ssenyonga, 2007). Both definitions advocate that the Arab nations are no exception to others in terms of impact of the massive world effect and global change associated with globalization. Globalization, together with new Information systems and technologies provided the leverage for improving higher levels of efficiency and productivity, proved that selling products on an international scale would reach a greater market, and showed that production has achieved extraordinary savings in labor costs on a global scale.

The main objective of this chapter is to examine the impact of culture on the outcomes of technology adoption in the Arab educational organizations. In addition, the chapter aims to identify the problems and other issues encountered with the emergence of new ICT Applications in the Arab Education sector to aid teaching and learning, and support functions in the Arabic schools with multicultural environment. In fact, the basic interest in technology solutions and systems is attributed to the evidence that using technology as an instructional tool in the classrooms would improve the student learning and educational outcomes, (Hanna & de Nooy, 2003). However, the key challenge that faced the author in searching for Information and Communications Technology (ICT) applications in the Arab education sector was the scarcity of reliable and accurate information, from simple case studies to investigations pertinent to the effectiveness of ICT application in education in the Arab world. Therefore, the literature review part focused on locating information that can help in drawing a realistic picture of the current status of technology adoption in the education sector in the region as well as exploring evidence of any positive or

negative cultural impact on the successful utilization of such technology applications, taking into consideration the interest in educators’ role, the required techniques, and special teaching skills that are needed for multicultural teachers in the Arabic schools.

The chapter begins with a presentation of some excerpts and insights from the existing literature on ICT application in the Arabic schools from both cultural and globalization perspectives, highlighting and critically analyzing some concurrent teaching and learning problems that might occur in a multicultural environment. A special emphasis in this area will be given to the problem of inequalities with suggestions for some strategies for further inclusion of marginalized groups. Towards the end of the chapter, the main findings and observations will be presented and discussed with reference to possible teaching and organizational implications and will be concluded with recommendations for future improvement.

The investigation is expected to be of value to Arab education leaders with vision and interest in reforming their educational institutions through technology adoption. It can also help information systems developers to have a better insight to the specific needs of the Arab education sector, including new ICT educational applications and software tools.

## **LITERATURE REVIEW**

Shana (2009) investigated rationalizing learning with technology by using the discussion forums in the classrooms to increase and develop the traditional teaching style. Using this technology is not new or recent in the highly developed and technically sophisticated countries. However, the use of such technologies as tools for instruction in education in many developing countries is relatively new and not yet well spread in all the schools. In a teacher-centered, traditional behaviorist stimulus response learning model adopted in

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