

# Chapter 11

## Information Systems in UAE Education Sector: Security, Cultural, and Ethical Issues

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### ABSTRACT

*This chapter demonstrates some of the most important issues pertaining to information systems, such as security, ethics, and culture in the Arab education sector. Despite the fact that there is an evident shortage of references on this important topic in the Arab region context, the authors managed to gather sufficient information to develop a reasonable insight that has led to suggesting recommendations for improvement in future studies. They demonstrate how the concerned issues are managed in the Arab region, with specific interest and focus at the UAE context. Ethics in information systems are very important, especially as information systems are global by nature; its impact cannot be limited. The UAE is part of the GCC countries, which represent the richest Arab countries, yet ethics are highly regarded. The second part of the chapter discusses information systems security issue related and the third is focused on the cultural issues. Although, separated for the purpose of research, cultural and ethical issues are inter-related and are very important, because both directly reflect the society's morals, traditions, language, customs, et cetera.*

### INTRODUCTION

In the technology and information era, increasing numbers of people are using computers that are connected through networks for communication between users. Unfortunately, the use of computers has caused new problems involving hardware

theft and infringement of software copyright laws. Computer technology largely influences the development of any country and has many positive benefits presented in the use of both software and hardware. However, there are some negative aspects which may occur as a result of these benefits. The infringement of copyright laws,

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the unlawful acquisition of private information, disputes over software patents, and the spread of electronic viruses across networks, are parts of those negative aspects.

There are so many definitions of information system. According to Wikipedia, Information System is any combination of Information Technology and people's activities that support operations management and decision making are related to the interaction by people, processes, data and technology. It is also a form of a communication system in which data is presented and processed as a form of social memory. The value of information professional systems stems from a breadth of knowledge and skills. Another definition of IS, given in an encyclopedia describes it as a system consisting of the network of all communication channels used within an organization. We may have so many other definitions, but the main components of IS are there.

Information systems have so many aspects. Security, Culture and Ethics which have become very important issues we deal with in IS. In this paper, we will try to cover the basic concerns related to each of these issues. Our focus will be on the Arab world in general and the United Arab Emirates specifically.

## **Educational Information System**

Any educational organization or school nowadays is using information systems to do its work and develop education all over the world. (Ala M. & Rima Sh., 2008) "Hence, Telem and Avidov (1994) define a School Information System (SIS) as a specialized Management Information System (MIS) that "matches the structure, management tasks, instructional process and special needs of the school". On the other hand, Information Technology in Education Management can bring a number of the benefits to a large number of stakeholders (administrators, teachers, students and parents) in educational institutions. These benefits include but not limited to: improving information

quality, saving time and efforts and improving control and utilization of school resources (Barta et al., 1991). In addition, the use of Information Technology in Education Management (ITEM) could facilitate the activities related to school management, student registration, and fee collection, reporting and timetabling (Friedman, 1994). Furthermore, school administration can use ITEM in all steps of the decision-making process to improve productivity (efficiency and effectiveness), labor quality and organizational structure (Barta et al., 1991; Oosthoek, 1989; Visscher, 1988, 1991, 1996)." In addition, there are many types of educational information technology which can be used in educational organizations to enhance the learning as well as the teaching processes and facilitate them. However, we can mention here some of these technologies like the internet which is the most important instrument which is used to open the door of educational technology for other technologies types. Furthermore, there are some web sites which serve as resources of educational information, for example, Electronic Resources Portal (ERP) for education, Wiki and some social networks, such as Facebook and Twitter. On the other hand, there are some other types of educational technologies that can play an effective role in delivering information in successful educational organizations. They vary in their designs, purposes and the way of managing each one for instance, the Electronic learning, Discussion board, Blogs and Smart boards. So, over these varied types of technology and expanding number of users, there should be frameworks to manage them. In information sectors, these frameworks are information ethics. In this case, there is a need to identify them and discuss their characteristics.

## **Information Ethics**

Information ethics have developed recently, encompassing areas such as computer ethics and global information ethics. It deals with the moral conduct of information-users based on their re-

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