# EFFECTS OF CULTURE AND RELIGION ON THE USE OF ICT IN THE SAUDI EDUCATION SYSTEM

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**Abstract—** Information Communication and Technology (ICT) is one of the fastest growing and advancing areas in our modern time. It has gained a great deal of attention in recent decades and become a cornerstone for development in the 21st century. In Saudi Arabia, with this tremendous development in the field of ICT, many challenges have emerged, such as the use of the internet in a manner inconsistent with Islamic values and the traditions of Saudi society,since Saudi Arabia is a religiously and socially conservative country with a high cultural homogeneity that is based on Islamic and tribal affiliation, which makes the culture complex and unique. This is particularly challenging for the government, especially since the country is trying to catch up with other developing countries, and, clearly, ICT learning is an important component of this development. This paper aims to investigate the cultural and religious barriers that influence Saudi's adoption of ICT.

**Index Terms—** ICT, E-learning, Culture and Religion.

## LITERATURE REVIEW

The kingdom of Saudi Arabia is a monarchy with a constitution based on the Quran and Sharia Law (Oyaid 2009), where Islam permeates all aspects of life, including education (Al-Sulaimani 2010). Islam puts a particular emphasis on education, which is considered to be a religious duty for all citizens, both males and females. Oyaid (2009) expressed an idea that Islam places education among the most important spheres of social life. In Saudi Arabia, religion and education are indivisible concepts, so the purpose of education includes not onlyacademic advancement, but also the improvement of religious awareness (Baki, 2004).

The Saudi government sees e-learning at all levels as the key to the development of skills and knowledge for its citizens. The country has dedicated a quarter of its government budget to be spent on enhancing education,and the numbers of universities have increased significantly in the past decade (Alkhalifa, 2010). However, one of the main features of Saudi society is the dichotomy between the preservation of beliefs and religious values and modern technology. Many authorities in the country believe that numerous social skills are associated with adopting the internet, which makes them more reluctant to incorporate ICT into their education system. Cultural issues also make ICT learning and technology in Saudi Arabia more challenging (Jin, 2010). This is because countries that exhibit distinct cultural traditions find it difficult to embrace change,which hinders them from embracing new technology.

Another important issue is the conservative segregation of women, in Saudi Arabia,which is the most notable characteristic of public life, as women are separated from men on the streets, in restaurants, at work, and even at home. Furthermore, in accordance with the Islamic law of the country, girls and boys are strictly separated from each other at all levels, including school buildings and teaching staff (Oyaid, 2009). Thus, AlMunajjed (2009) concluded that gender segregation and a focus on religion are the characteristic features of Saudi Arabia culture and education, and the consideration of ICT implementation in Saudi Arabia should be regarded inseparably from these cultural features.

As a result of such religious and cultural constraints, internet censorship within Saudi Arabia is considered as one of the most extensive in the world. For example, just one year and a half after the introduction of the internet in the Kingdom of Saudi Arabia, back in 1999, the number of websites banned in the countryreached 200,000. Five years later, the number of banned websites had redoubled by 100% to 400,000. According to the Saudi government, the main reason why some internet sites are prevented in the Kingdom is to protect the values and culture espoused by Muslims.

In 2012 and early 2013, the Saudi authorities continued to employ strict filtering of internet content. Sites that are judged to contain anti-Islamic, illegal, harmful, or offensive material are routinely banned, including pages related to drugs, gambling and pornography,while part of the government's blocking policy is designed to disrupt terrorist networks and the dissemination of extremist ideology (Freedom House, 2014).

According to Al-Arabiya (2012), the Saudi government blocks any content that it deems harmful to society. The extensive list of sites blocked under these policies is supplemented by an additional list formulated from recommendations of the public (CITC.SA, 2015). This, in turn, has affected the implementation of e-learning in Saudi educational institutions, which are still at an early development stage, due to the many challenges still facing the country, which include, as previously mentioned, culture and religion (Oyaid, 2009).

Although some countries, such as Malaysia and Singapore, have adopted a web based education system implementing initiatives to push forward e-

learning solutions, Saudi Arabia, however, is a latecomer to this and is still trying to balance between globalization in learning and its own cultural and religious values (Haider, 2014). Most education software companies localize their products to the local preference of the countries they are targeting, a process which adapts user interfaces for local languages, time formats and date. This means that the instructional model is international, and hence the model of education is not suitable to fit the culture or learning style of a particular country (Abdallah, 2010).

Moving on to the issue of culture, according to Hofstede (1991, p.5) culture is "the collective programming of the mind which distinguishes the members of one group or category of people from another." Generally, culture affects the way people interact, and, more specifically, it also affects the way people interact with computers, as the user is required to interact with the system in order to achieve tasks (Jesson& Peacock, 2012). Web education is highly affected by cultural factors, such as the style of presentation of the curriculum, the educational style of an individual and the relationship between the teacher and the student. It is also affected by collaborative learning, social interaction and social presence.

As already identified, Saudi education is clearly affected by Islamic and cultural traditions. This includes segregation of genders and the imitation of web based styles of teaching from overseas, which might be inappropriate for Saudi students. The cultural perspective of the user should therefore be taken into account when designing e-learning, so as to attract and retain more users (Jin, 2010). This could be achieved by the localization of web based education which is the process that involves adapting a website to make it more understandable, usable, accessible and culturally suitable for a specific market. Web based education can therefore be designed for a specific culture so as to serve the needs of the particular audience or for cross cultural interactions, as well as being designed to serve the needs of an international audience (Mahmood, 2013).

A great deal of research has been carried out into cultural effects on ICT integration. The Hofstede model is a well-known framework which can be used to define the patterns of feeling, thinking and acting that form the mental programming of a particular culture. From the outcomes of research and investigation conducted in 71 countries around the world including Arabic countries, the model introduced a useful system to understand how the cultural values of a specific country affect the way people behave, divided into four dimensions, individualism vs. collectivism, masculinity vs. femininity, power distance and uncertainty avoidance (Ramady, 2010).

**Individualism vs. collectivism** is a cultural orientation that refers to the degree to which people prefer to act as members of a group or individuals. This affects web based education in that students prefer to be part of a group than having the traditional relationship with their teacher (Nour, 2013). This implies that students prefer to study in collaboration and accept their peers' recommendations to enhance their education. This affects personalized e-learning and calls for a more localized learning system that will support teamwork and social interaction. This is, therefore, another reason why ICT and technology have not yet been successfully integrated into Saudi society (Abdallah, 2010).

**Masculinity vs. femininity index** is a cultural dimension that refers to the masculine society in which emotional gender roles have been clearly distinguished. In such societies men are expected to be tough, assertive and focused on material success. The women are expected to be tender, modest and more concerned with the quality of life (Pande& van der Weide, 2012). In low masculine societies, collaboration between men and women is accepted and the exchange of information is allowed. However, Saudi Arabia is a high masculine society that is affected by Islam and strong cultural traditions. Gender separation is obligatory and the societal norms have an impact on all aspects of life, including the educational environment, the development of ICT and technology. Male and female students learn in different buildings and no communication is allowed between them except for close relatives in special situations. High masculine societies like Saudi Arabia do not accept collaboration and exchange of information between the two sexes which can also limit ICT education and technical know-how (Mousa, 2014).

Cultural dimensions in Saudi Arabia thus highly impact the construction of educational situations, such as the process of learning, the content, the style of teaching and interaction between the teacher and the student. Another important cultural concept is power distance, which looks at how the society values hierarchical relationships and the respect for authority (Mahmood, 2013). Saudi Arabia is a high power distance society. This affects ICT education, because there is no close or personal relationship between the student and the teachers. The students cannot be trusted and need clear guidance from the teacher. In addition, students respect their teachers and prefer to listen and receive feedback from their instructors.

The cultural concept of uncertainty avoidance refers to the extent to which the society lives in fear of unknown and ambiguous situations. This heavily affects the degree of acceptance and rejection of ambiguity and situations that are unknown in the future. It can therefore clearly impact on ICT education and technology, because it affects the behaviour of the student in the construction of their education. In societies with high uncertainty avoidance situations, the students accept the unknown and want to know more about the future of their

education (Mousa, 2014). They also tend to prefer simple designs with limited amounts of data and clear descriptions. Saudi culture exhibits high uncertainty avoidance,so ambiguity and uncertainty unacceptable for most people. This might limit the interactions of the students and with the internet in regard to personalized e-learning, with Saudi students needing more guidance and help in clear descriptions, simple designs and limited amounts of data to decrease this uncertainty and ambiguity (Smith, 2015).

Although ICT has global significance, cultural variables should also be considered. Implementation of ICT comes with internet access. There are many negative views about the content of the internet, such as political beliefs and extremism, strange religions, pornography and different cultures. These factors are unacceptable in Saudi Arabian culture which is based on Islam (Pannu& Tomar, 2010),with the result that the internet is one of the main reasons why ICT has not yet been successfully adopted in Saudi culture.However, the potential need for ICT education and new technology in the Kingdom of Saudi Arabia is increasing, due to its high growth vis-à-vis the scarcity of members of the faculty in quality and quantity, the effort aimed at reducing financial waste such as in training methods, the coordination of approved programmes and the production of educational materials (Nour, 2013).

New technologies like e-learning could have a significant impact on society and revolutionize the accessibility of higher education. E-learning offers students the ability to study at their own pace in their own location, which is extremely convenient, especially for those living in small towns. It will also allow students in rural and remote areas to pursue their degrees online at a distant university (A-Marhooqi &Troudi, 2014), whichcould also offer a great opportunity for women who are not allowed to study in the towns. In addition, t can be an advantage for those students who prefer a secluded and private nature of learning, and finally it can save time, as it eliminates the need to travel back and forth between home and university. As well as these practical issues, regarding its educational benefits, e-learning is also likely to aid in improving literacy rates, and it has been said to constitute an environment of higher capture of knowledge and a high retention of content (Al-Mutairi, 2010).

## CONCLUSION

Saudi schools are technically, politically and culturally unprepared for a change paradigm. However, transitioning from ICT adoption to implementation can be successful within the Saudi integration pedagogy, which is firmly grounded in Islam, as long asthe teachers have excellent ICT tools and training and support from the administration for effective implementation of ICT (Shareef, 2011). Furthermore, the Islamic pillars of excellence, high

quality, holism and spirituality can contribute significantly to ICT development in the country. Thus, developing new learning programmes with colleagues,experimenting with new methods of teaching, and brainstorming on how to improve pedagogical practices will be instrumental in integrating ICT into the education system.

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