Abstract: This brief contribution outlines some of the fundamental qualitative and quantitative research questions that need to be asked regarding e-learning in the Middle East and North Africa (MENA) region. Although e-learning has expanded at a rapid rate since 2005, particularly in the Arabian Gulf and in Israel, Egypt and Iran, which have developed mature e-learning infrastructure and systems, the following serious issues remain: 1) both learning and cost effectiveness have not been completely demonstrated 2) accreditation of courses 3) access 4) training, including educators, students, and ITC staff 5) gender and cultural issues. The paper suggests ways in which potential answers can be found to these concerns through well-designed research efforts. Policy planners and educational administrators have relied heavily in the past on cost, validation, and effectiveness studies generated in Western countries, yet due to the different historical, philosophical and cultural dimensions of Arabic education, more research specifically geared to the unique situation of e-learning in MENA would be welcome.

Keywords: E-learning and emerging technologies, M-Learning, Gulf Cooperation Council (GCC), Arabian Gulf (Qatar, Bahrain, Kuwait, UAE, Oman, Saudi Arabia).

I. INTRODUCTION

Since 2000, interest in e-learning has been growing steadily throughout the Middle East and North Africa (MENA) region and Gulf Cooperation Council (GCC) countries of Qatar, Bahrain, Saudi Arabia, Oman and United Arab Emirates. UAE, Iran, Egypt, and Israel now have robust and maturing e-learning systems, with considerable amounts of scholarship emanating from these countries. This contribution originates as a companion piece to an extensive preliminary literature review carried out by Weber in 2010 of MENA e-learning scholarship [1]. Scholarship trends have been isolated from this review and used to compile the brief analysis below. Some specific issues, such as cultural concerns, are much too complex to discuss in detail in this paper, thus only major areas of interest will be noted as future topics for debate and targeted research.

1.1 Cultural Concerns

In many university and secondary educational institutions of Islamic nations, gender segregation is practiced in some form. Cultural taboos, which some Islamic scholars link to Quranic injunctions about Hijab and veiling, prevent or restrict the social interaction of unmarried men and women. Consanguineous (first and second cousin marriage) is still quite common in Jordan, Qatar, and the UAE and in some instances is increasing, due to desires to preserve wealth in families. Therefore some of the collaborative tools in course management systems (live chat function, or even asynchronous chat), may be at variance with Islamic customs. Male/female interaction in online environments should be a focus of study, and means of non-intrusive monitoring as well.

Also, the reaction of Muslim students to potentially biased learning objects created in the West should also be gauged with respect to learner outcomes. Cultural bias in general may cause cognitive interference with Arabic speaking students. Closely related to culture is language: the language of instruction is English, for example, at many of the new branch campuses in Qatar and the UAE, such as Qatar’s Education City (comprising Northwestern University, Cornell, Carnegie Mellon University,
Texas A&M, Georgetown School of Foreign Service, and Virginia Commonwealth University). Inadequate research exists on not only e-learning and second language acquisition, but on Arabic bi- and tri-lingualism in general.

1.2 Mobile Apps

Mobile devices such as Smartphones, PDAs, and iPads are being increasingly scrutinized for their potential as deliverers of online learning content. In fact, for various economic and social reasons, the mobile phone is much more popular than internet usage in many Arabian Gulf countries. The cultures of these countries do not have a long written tradition, and rely on orally transmitted information. The majlis, where men gather to discuss politics and news, has survived as a feature of Gulf society. Therefore more research should be done on M-learning, as it holds enormous potential for the region. With Cloud Computing, very simple and low capacity mobile devices can draw on the power of remote data centers to access course management systems on remote servers. However, small screen sizes, small touchpads, and the tendency for information to be delivered in fragmented chunks must be overcome. As of yet, no mobile devices widely and commercially available have been developed that specifically cater to learning needs.

1.3 Privacy Concerns

The issue of privacy in e-learning with respect to Cloud Computing in MENA has been dealt with in a similar paper by Weber in 2011 [2]. Many educators in the West are still concerned that student health and educational data is not as secure as it should be. Vocal opposition to potential misuse of personally identifiable data on social networks recently arose in the case of Facebook. Course Management Systems, in their collaborative online functions, can imitate features of social networks, such as the posting of student photos, sharing of personal information, online chatting, etc. Arabian Gulf traditions emphasize the privacy and sanctity of the home, and the potential for misuse of online information used in an educational setting is immense. Research into proper technological and cultural safeguards is necessary to allay Muslim parents’ fears about the safety of the online environment.

1.4 E-learning Effectiveness

A recent literature review of e-learning scholarship by Weber (2010) from 2000-2010 retrieved several thousand articles. Trend analysis indicates that description of new projects and implementations form the bulk of e-learning scholarship in MENA region. Studies specifically designed to demonstrate effectiveness formed only a small to moderate percentage of total studies, for example from a high of 22.6% of total Egyptian studies of e-learning, to a low of 7.6% of Jordanian studies and 0.0% in Djibouti and Yemen [3]. Further studies in this area are therefore needed. Many institutions in MENA may be adopting a “bandwagon” approach to e-learning, attracted by its popularity in other countries, with little understanding of its benefits and pitfalls for specific learning outcomes.

1.5 Women and Computer Literacy

Not just computer literacy, but women’s illiteracy in general in the Arab world is a major concern for women’s education and development, as Hammoud has noted: “high rates of illiteracy among women persist in the majority of the Arab countries, indeed women today account for two thirds of the region’s illiterates and according to the Arab Human Development Report 2002, p.52, this rate is not expected to disappear “until 2040”” [4]. Social Context Research would be helpful to investigate how e-learning might facilitate disadvantaged or home-bound learners. As Azaiz has noted: “Because of traditional, social, and religious affiliations … the majority of women in rural areas within the Arab world cannot physically attend classes at traditional universities” [5]. Also, insight into gender differences in learning styles, general computer use, and help-seeking behaviors would be welcome by MENA educators.
II. CONCLUSIONS

Exciting opportunities for primary and novel research on e-learning are available in every country of the MENA region, and particularly in the GCC countries, as many cultural, educational, language, training, and technical issues have not yet been fully resolved. Countries such as Qatar, which have benefitted immensely from recent high oil and gas prices, are using their new found wealth to upgrade their educational capacity. Not only have Qatar and the UAE in particular been leading the way towards the adoption of e-learning, e-government, and e-commerce solutions, newly established branch campuses in these countries are generating scholarship on the unique parameters of e-learning in the Arabic-speaking world.

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