Mobile Learning in Higher Education in Sudan

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Abstract: This paper examines implementation of mobile learning in higher education in Sudan and whether universities have planned or planning to apply this technology. The paper also aims to discover the factors that lead to impeding the application of mobile learning. The findings demonstrate absence of strategic plan for mobile learning in higher education despite existence of ICT policy in education in the region. Furthermore, the results show some factors hindering use of m-learning as instance lack of financial resources, and infrastructure. The paper concludes with an emphasis on the need for a strategic plan for m-learning in higher education in Sudan.

Keywords: Mobile Learning Policy. Plan Implementation. Educational Institutions. Sudan

1. Introduction

This study examines the state of mobile learning in higher education in Sudan. Qualitative methods have used to collect and analyze the data. Semi-structured interviews have been used to gather the data from educational technology departments in several universities (six peoples has been interviewed), the data has interpreted and main findings has reported. This study could be needed to shed light on the employment of mobile learning in higher education in Sudan as a global orientation.

The idea of extending the use of mobile devices in educational contexts is flexible and can be applied broadly (Eltayeb & Hegazi, 2014). Therefore, how such technology could be used to improve the education? Mobile learning (m-learning) defined as "learning that can take place in locations" (Savill, Attewell, & Tribal, 2006, p. 11). Furthermore, m-learning is a way of facilitating the process of learning and can be viewed as the process of learning anywhere anytime (Chu & Cai, 2015).

This paper investigates whether Sudan as one of the least developed country with multilingual characteristics and trying to use technology in education to increase the availability of knowledge and digital skills. The country has produced a five-year's plan (2012-2016) to apply information technology in all educational stages. This plan does not include use of m-learning, as a result, the study investigates whether higher education institutions are planning to use or implement m- learning.

2. Literature Review

The literature of m-learning in higher education addressed several issues as instance policy adoption (Khan et al., 2015), perceptions and challenges of m-learning implementation (Khan et al., 2015), m-learning as tools to support teaching and learning (So, 2016), a task-interaction to support educational decision-making (Fulantelli, Taibi, & Arrigo,2015), as well as investigations of the student learning mobility and the needs to enable location based learning (David et al., 2017).

In sub-Saharan Africa, still issues of m-learning (Kaliisa & Picard, 2017) is not separate from the context of Sudan, where the lack of literature, however, some studies investigate using mobile phone to develop some skills for kids such as mathematic skills, using Tablet for out of the schoolchildren (Stubbé et al., 2017), and some studies addressed the social part of mobile phone such as uses of m- phones in public places (Khattab & love, 2009).

Nevertheless, using m-learning still in the infancy stages in Sudan in terms of Policies, infrastructure, cultural and role of m-learning, as well as student motivation and skills to use m-learning (Altayb et al., 2014). To conclude that, there is a needs to Pedagogical, critical perspective to implement these technologies and embedded it to the curricula to best serve educational progress.

3. Research Purpose

The purpose of this paper is to find out whether there is planning for m-learning in higher education in Sudan. In the case of positive response, the study would investigate what strategies they are using for the implementation of their plans. In the case of negative response, the study would attempt to find out the factors impeding the employment of m-learning in higher education in Sudan. Based on the purposes of the study, the researcher has proposed these following questions to be answered:
- Is there any institutional strategic plan for mobile learning in higher education in Sudan?
- What are the factors that hinder the use of mobile learning in Sudanese universities?

4. Methodology

The aim of this study is to investigate the status of m-learning in higher education in Sudan and whether educational technology departments have planned or are planning to apply this technology. Qualitative approach has been used to collect the data. The study also has designed and employed semi-structured interviews with several administrators of educational technology departments in different universities to get comprehensive data for the purpose of the study (Bryman, 2008). In other words, the authors conducted an interview with the directors of educational technology departments. The interview has sent to six educational technology departments in six universities, including the Open University of Sudan (OUS), as well as two experts of educational technology.

5. Findings and Discussion

The paper presents the future of m-learning based on the interviewees' prospects, and how it can shape the future of m-learning in Sudan. As mentioned previously, Semi-structured interviews have conducted to collect the data, the interviews were transcribed for subsequent analysis. The study participant's names have coded (A, B, C), after review of the coded segments led to the emergence of three major themes related to the topic of the study.

5.1 Mobile Policy Adoption

The study investigates the needs to the policy to implement m-learning, the interviewees; however, it is important to planning for mobile technology in Sudanese higher education. In addition to the lack of equipment, there are still other factors impeded the application of m-learning in Sudan. These factors represented in the lack of m-learning policy, financial resources and infrastructure, as well as less considering of the role of m-learning. Notable, there is a policy for ICT which called Five-year's Plan 2012-2016. Although this policy emphasis on the use of ICT in education, however, it does not include use of m-learning. As a result, the appeal is for formulating policy for m-learning. This step may match with the UNESCO orientation of m-learning "new policy related to mobile learning should be established within existing ICT in education policies which many governments already have in place" (UNESCO, 2013, p. 30).

Addition to the factors above, interviewees A, B, and C believe that "educational technology administrators need to find a way to play effective role in the university planning how to use technology as a whole, and mobile device as part of this technology, the interviewees also emphasized that we need to best utilize of m-learning, raise awareness of educational leaders about the m-learning, in order to promulgate an appropriate policy to support using such kind of technology". This statement emphasizes

the importance of policy for m-learning because investigations about an institutional plan for using such technology has led to finding out that there is no such plan at all.

5.2 Mobile Usage & Accessibility of Internet

Concerning use and accessibility of internet, mobile devices in particular m-phone is available among teaching staff and students, however, their main use is for social interactions (Facebook, WhatsApp, etc.). This might imply that students may use these social media for learning, therefore, they need to be skilled digitally (how to use m-learning effectively). The interviewees (A, B, and C) were stated the following: It shall need to provide classroom with mobile devices to engage the student in a real learning situation, nonetheless, this step requires the university enrich the student learning and improve teacher's digital skills. To enable such practice, it is necessary to establish the requirements of m-learning (infrastructure, digital curricula, etc.)

5.3 Future Directions

According to the study participants, higher education in Sudan needs to adopt and implement m-learning requirements from the ground (policy, infrastructure, digital skills, internet availability, and so on) to catchup the regional and global progress in this era, with following the orientation of UNESCO, African development bank, and other good experiences of m-learning.

6. Conclusion

The paper focused on of m-learning adoption in higher education in Sudan in term of strategic plan and policy formulation. Factors affecting m-learning in Sudan has defined and recommendations has been suggested. There is a need to formulate policy, establishing infrastructure, offer technical support, and increase the culture of m-learning to enable this technology in higher education in Sudan.

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