Strategies for Developing an e-Learning Curriculum for Library and Information Science (LIS) Schools in the Muslim World: Meeting the Expectations in the Digital Age

Bappah Magaji Abubakar[1]
[1]Department of Library and Information Sciences
Bayero University
Kano, Nigeria

Basri B. Hassan, PhD[2]
[2]Department of Library and Information Science
International Islamic University Malaysia
Kuala Lumpur, Malaysia

Abstract

The emergence of information and communication technologies (ICTs), particularly, the Internet and other related technologies have brought about a fundamental and dramatic shift in the global educational system, which is changing by the day. This shift has manifested in the form of e-learning where ICT software and hardware are used as tools for teaching and learning. Thus, e-learning has become an integral part of the 21st century education and training which is adopted by different institutions. The paper discusses the concepts of e-learning and curriculum development. It also addresses the critical needs for developing an e-learning curriculum for LIS schools in the Muslim World. The discussion is rooted within the perspectives of the benefits of developing an e-learning curriculum that will provide accessibility to LIS education in the Muslim world; enhancing the quality of those programmes provided; as well as cost effectiveness of the e-learning programmes. Additionally, it presented the strategies for developing an appropriate e-learning curriculum for the LIS schools in the Muslim World. The paper equally discusses the challenges that could likely serve as stumbling block to such curriculum development strategy. It also suggested the potential solutions to such challenges. The paper concludes that e-learning has come to stay, and that all efforts should be made by LIS schools in the Muslim world to ensure its full acceptance and adoption, if they are to become key players in the 21st century LIS education arena.

Keywords: e-Learning, Curriculum Development, LIS Schools, Strategies, Muslim World.

Introduction

The emergence and rapid development in Information and Communication Technologies (ICTs), particularly, the Internet and other related technologies have brought about a fundamental and dramatic shift in the global educational system. This fundamental shift has manifested in the form of e-learning where ICTs such as the computer, the Internet and Intranet, CD-ROMs are used as tools for teaching and learning. E –learning nowadays has become essential and it is implemented in every field from Space to Government. Thus, the new trend of communication technology has also impacted e-learning in education including the Library and Information Science field (Bhabal, 2008). In the field of education in general, it has made a tremendous impact in the way and manner research is conducted (Abubakar, 2011). In addition, Panahon II (2007) noted that e-learning has assumed an increasing importance in the 21st century education system within and outside school environment. Consequently, according to him, new technologies such as the Internet and videoconferencing have made e-learning either as an effective complement or a substitute to conventional classroom learning processes.

According to Edegbo (2011), the introduction of ICT into higher education has clearly changed the way and manner education is conducted. Edegbo asserted that apart from providing opportunities for distance learning and collaboration, ICTs are also paving way for new pedagogical approach.

This according to him enables students to communicate, create presentations in power points, as well as interact with their colleagues and teachers using technology etc.

Indeed, it is imperative to note that Library and Information Science field is a vibrant and dynamic professional discipline that is drastically being transformed due to the emergence of ICTs. The field equally, is amenable to such changes which is inevitable. This is evident by the emergence of certain concepts and aspects within the profession, particularly, in this 21st century, e.g. the emergence of issues like those associated with information architecture, knowledge management, digital libraries, web 2.0, Internet/web search skills, metadata, and a host of other e-related issues have become the order of the day. Thus, library and information science programmes all over the world are embracing and adopting e-learning technologies to deliver LIS education (Shiful Islam et-al, 2011). In fact, Miwa (2006), cited in Huang (2010), specifically reported that universities in Asian countries such as Japan, Korea, and Singapore have been using e-learning to facilitate library and information science education in a networked environment. Therefore, the need for embracing e-learning by LIS schools in the Muslim World has become imperative for obvious reasons, one of which is to ensure compliance with the current global trends.

This paper attempts to discuss the strategies for developing an e-learning curriculum within the perspective of the rapidly changing LIS environment. It equally takes into consideration the global requirements in e-learning in the digital age.

Literature Review

A review of the literature indicated the existence of ample writings and studies available on the subject of LIS education and curriculum that relates to the issues of e-learning. The literature review in this paper is divided into three sections: (a) concept of e-learning (2) curriculum development, and (3) curriculum development in LIS.

Concept of e-Learning

The term e-learning has become a major topic of discussion among scholars and writers in recent times, and it is used in various ways. But generally, many scholars agreed that the concept is synonymous with online learning. According to Bhabal (2008), the term e-learning is used in a variety of ways which comprises of such terms as online learning, Computer Based Learning (CBL), Web Based Training (WBT), Online Resource Based Learning (ORBL), Networked Collaborative Learning (NCL), Computer Supported Collaborative Learning. E-learning could be interpreted as electronic learning; the learning that involves the use of Internet; learning from a distance via the aid of the Internet and, or other electronic gadgets (Eke, 2010).

Govindasamy (2002) defined e-learning as instruction that is delivered by way of all electronic media, including the Internet, intranets, extranets, satellite broadcasts, audio/video tape, interactive TV, and CD-ROM. According to Ruiz et-al (2006), "e-learning refers to the use of Internet technologies to deliver a broad array of learning modes that enhance learners' knowledge and performance." While another broad definition by the Canadian Council on Learning cited in Abrami et-al (2006) considered e-learning as the development of knowledge and skills through the use of Information and Communication Technologies (ICTs), particularly, to support interactions for learning-interactions with content, with learning activities and tools, and with other people. In the context of the last definition, e-learning involves a wide variety of learning interactions that encompasses content, activities, tools, as well as people. While on the other hand, Waterhouse (2005) further added that e-learning entails improving teaching and learning using instructional strategies enhanced by technology, particularly computer technology.

While discussing on e-learning in LIS education, Islam, Chowdhury, and Islam (2009), summed up the main characteristics of e-learning in the following way:

- Learning facilitated and supported through the use of Information and Communication Technologies.
- Education provided using electronic delivering methods such as CD-ROMS, video conferencing, websites and e-mail, commonly used in distance learning programme.
- Education that is normally accomplished over the Internet, computer network, and via CD-ROM, as well as by interactive TV or satellite broadcast.

In the strictest sense, all these definitions points to the fact that e-learning involves the use and application of ICTs in the provision and delivery of learning which invariably improves learning. Such ICTs include computers, Internet/Intranet, CD-ROM, video, audio, and text, as well as virtual environment, etc.

Curriculum Development

The term 'curriculum' covers a group of activities or learning experiences designed explicitly to meet certain educational needs (Day, 1997). A curriculum is a key factor shaping the educational outcomes of a programme and that, the way it is developed and delivered affects the experience of students in the programme (Lester, 2011). Furthermore, in any educational programme, the curriculum is the best barometer of its nature and content (Chu, 2010).

According to Glatthorn, Boschee and Whitehead (2009), a curriculum is the plans made for guiding learning in the schools, normally represented in retrievable documents of several levels of generality, and the actualization of those plans in the classroom, as experienced by the learners and as recorded by an observer; those experiences that normally take place in a learning environment that also manipulates what is learned.

While on the other hand, curriculum development is generally considered as a continuous process of mounting an educational programme over a period of time, which has no terminal point. In other words, the procedure of developing a curriculum has no end. It usually begins with the identification of objectives for the proposed programme of study. Curriculum development is a process whereby the choices of designing a learning experience for students are made and then activated through a series of coordinated activities (Wiles and Bondi, 2007).

Posner and Rudnitsky (1994) referred to curriculum development as the process by which intended learning outcomes are selected and organized. While from another dimension, Sa'ad (2005) stated that curriculum development simply refers to the method of producing structured educational programme, which is generally part of the social transformation or change in the educational sector.

Similarly, Tomkins and Case (2011), considered curriculum development as the systematic planning of what is taught and learned in schools as mirrored in courses of study and school' programmes. Further, these curricula embodied in official documents and made compulsory by provincial and territorial departments of education. Curriculum development, according to Lawal (2000), refers to the continuous review of course content and relationships undertaken as required: such as, when the employment market, or professional thoughts, or manpower forecast, or the trend of research interests dictates that change is expected.

From the above, it can be seen that curriculum development involves series of activities that encompasses syllabus formation, determining programme aims and objectives, course contents, learning outcomes, as well the methods of delivery of the educational programmes. In summary, it implied that curriculum development entails continuous development and review of course contents to ensure that they are relevant and adequate in meeting the demand of the ever changing job market.

Curriculum Development in LIS

The International Federation of Library Associations and Institutions IFLA (2009) have recommended that the core courses in the LIS curriculum should consist:

- The Information Environment, Information Policy and Ethics, the History of the Field;
- Information Generation, Communication and Use;
- Assessing Information Needs and Designing Responsive Services;
- The Information Transfer Process;
- Organization, Retrieval, Preservation and Conservation of Information;
- Research, Analysis and Interpretation of Information;
- Applications of Information and Communication Technologies;
- Library and Information Products and Services;
- Information Resource Management and Knowledge Management;
- Management of Information Agencies;
- Quantitative and Qualitative Evaluation of Outcomes of Information and Library Use.

Similarly, the Kellogg-ALISE Information Professions and Education Reform Project (KALIPER, 2000) had found the existence of new trends in the LIS education. According to Xu (2003), the KALIPER report indicated that most LIS schools were undergoing a vibrant, dynamic and significant change, even though the areas targeted for such changes varied from school to school, and some LIS schools were in periods of greater flux than others. Related to the changes within the LIS education, six trends were identified by the KALIPER project as follows:

- LIS curricula were addressing broad-based information environments and information problems;
- Incorporating perspectives from other disciplines, and the emergence of a distinct core that is predominantly user-centred;
- Increasing investment and infusion of IT into their curricula;
- Experimenting with the structure of specialization within the curriculum;
- Providing instruction in different formats;
- LIS schools were expanding curricula through offering related degrees at the undergraduate, master's, and doctoral levels.

Over the last two decades, the LIS discipline has witnessed series of transformations, and great changes, particularly, in relation to ICTs, and Internet. Thus, such changes naturally have shaped and influenced how the LIS professionals are educated (Chu, 2010). Similarly, Rehman (2012) noted that changes in the LIS profession have been swift, and need to reflect in academic policies and curriculum. Therefore, issues relating to the direction of LIS programmes, curriculum changes, subjects to be taught, and required knowledge and skills LIS graduate students should possess have been widely discussed (Xu, 2003). The nature of the curricula in LIS education has been changing drastically due to technology and the advent of information society (Mammo, 2007). Above all, the intellectual content of the curriculum for any programme has to keep pace with the demands of the profession (Edzan and Abrizah, 2003).

LIS schools have been increasingly providing training through the e-learning mode in recent years. For example, the American Library Association (ALA) as cited in Marek (2009) reported that within the 62 ALA-accredited LIS graduate schools, 41 LIS schools (66%) offered some of their programmes online, while 14 (23%) LIS schools offered their entire programmes online. This shows that 89% of ALA-accredited LIS programmes were provided online.

Furthermore, recent reports and researches suggest that many LIS schools, globally, have been changing the contents of their curricular, faculties and departmental names, as well as programme offerings (Jamaludin, Hussin & Wan Mokhtar, 2006; Ameen, 2007; Rehman, 2003). Equally, LIS schools are including in their curricula new courses such as web design and development, digital libraries, knowledge management, as well as human computer interaction (Xu, 2003; Chu, 2010).

Similarly, Islam et al. (2011) utilized an online survey to explore the global scenario of e-learning in Library and Information Science programmes. The study which examined 370 LIS programmes, found that 85 LIS programmes were providing degrees and other related certificates that comprises of certificate courses, diplomas, Bachelors, Master's and Doctoral programmes. Additionally, Blackboard or Blackboard vista was the most frequently used e-learning tool in the LIS schools. Chowdhury and Chowdhury (2006) investigated the situation of e-learning facilities and the support given to LIS departments in the United Kingdom. They found that all the concerned LIS departments have embraced ICT for providing e-learning, and also some of the departments used virtual learning environments (VLEs) for e-learning; while others used in-house intranet systems, as well as specially built in-house system. Library and information science programmes throughout the world are adopting e-learning to provide education services (Shiful Islam et-al, 2011). Likewise, delivering courses or even the entire LIS programme online (through the Web) becomes a widely adopted mode of education (Chu, 2010).

Benefits of Developing an e-Learning Curriculum for LIS Schools in the Muslim world

Google search has shown the existence of LIS schools in the Muslim World. The table below (Table 1) shows the Muslim countries that offered LIS programmes. Developing an e-learning curriculum by the LIS schools in the Muslim countries will help improve the accessibility of LIS programmes to prospective students irrespective of location or time.

Table 1: Major Countries in the Muslim World with LIS Schools

S/No.	Name of Countries
1.	Arab Republic of Egypt
2.	Hashemite Kingdom of Jordan
3.	Islamic Republic of Iran
4.	Islamic Republic of Pakistan
5.	Kingdom of Morocco
6.	Kingdom of Saudi Arabia
7.	Libya
8.	Malaysia
9.	People's Democratic Republic of Algeria
10.	People's Republic of Bangladesh
11.	Republic of Indonesia
12.	Republic of Iraq
13.	Republic of Mali
14.	Republic of Senegal
15.	Republic of Sudan
16.	Republic of Tunisia
17.	Republic of Turkey
18.	State of Kuwait
19.	State of Qatar
20.	Sultanate of Oman

Source: Google Search as at 20th June, 2012

Catherall (2005) pointed out that the practice of e-learning offers immense benefits to students because of its convenience, flexibility, accessibility and cost effectiveness. Other scholars also highlighted the benefits of e-learning. For instance, Kala (2009) stated that e-learning approach allows quick, easy and relatively cheap sharing of information and ideas with people across the world. Abu Bakar, Harande and Abubakar (2009) stated that e-learning have the potentials of providing quality education. They argued that knowledge of LIS specialists and educators around the globe can be utilized by the LIS schools in the Muslim World.

As indicated above, the rapid increase in the demand for higher learning necessitates the need for the adoption and subsequent development of a robust e-learning curriculum to cater for the needs of the LIS schools in the Muslim World. Additionally, e-learning also provides opportunities for intending part-time students who may not have the opportunity to attend a formalized LIS programme in those LIS schools. Bearing in mind that situation, Huang (2010) contend that e-learning can be viewed as an alternative to traditional instruction for students who want to pursue a part-time postgraduate programme, but who are hindered because of job responsibilities and time factor.

Islam, Chowdhury, and Islam (2009) identified the benefits of e-learning to LIS professionals to include:

- It offers new opportunities for LIS professionals to develop their knowledge and skills in a wide variety of areas.
- e-Learning makes the LIS professionals more confident and competent in the area of ICT usage.
- It offers the information professionals the opportunity to develop new roles and responsibilities both within and outside the information environment.
- It also provides opportunities for professional collaboration in a wide variety of areas, because of its flexibility and cost effectiveness.

Waterhouse (2005) offered a broad array of e-learning benefits which include the following:

- E-learning facilitates student-centered learning which ensures that students are actively involved in learning, by promoting activities such as online self assessment, web-based research etc. Thus, this minimizes the need for detailed note taking
- E-learning ensures simplicity in learning which is a situation whereby students learn at their own convenience as opposed to having to attend regularly planned instructional gatherings
- It also facilitates student' interaction with course content which is a scenario whereby students interact with course resources/content through the web, which is normally created by the instructors

- E-learning facilitates and promotes communication and collaboration in that, it enables students to engage in online discussion for proper communication and mutual collaboration. This online discussion provides an excellent approach for examining issues
- E-learning makes course administration easier, and reduces the cost of delivering instruction. In this situation, the practice of e-learning saves the time of the instructor, and the learner, unlike in a traditional mode. Further, it has the potential of decreasing the total costs of delivery, and at the same time improves student' learning. The benefits can be summarized as follows:
    - Flexibility
    - Cost effectiveness
    - Convenience
    - Accessibility
    - Opportunities for part-time studies

Strategies for Developing the e-Learning Curriculum for the Muslim World

Attempting to develop a curriculum can be both exciting and challenging. This is, because, proper curriculum development exercise is time consuming, and requires the involvement of all stakeholders. Equally, the curriculum is expected to reflect the local situation, as well as the current global trends in a particular discipline. Therefore, in developing an e-learning curriculum for the LIS schools in the Muslim World, the following strategies are recommended:

- The need for organized workshops by the LIS schools in the Muslim World which would address and, at the same time identify the potential learners, what they are expected to learn, the objectives of the e-learning programmes market demands, as well as how the programmes would be delivered. Also, to determine the various levels of such programmes, the assessment methods, and the expected learning outcomes. These processes would ensure the establishment of sound and robust curriculum content for an e-learning programme. Govindasamy (2002) noted that for any e-learning implementation exercise to succeed, it must be rooted in strong teaching methods.
- The e-learning curriculum should be jointly developed by the respective faculties, and all other stakeholders', most especially, the employers' of the LIS graduates. The participation of stakeholders' in curriculum development is non-negotiable. Indeed, various professional associations' like the IFLA, ALA, and ALIA have for long recommended for the participation of stakeholders in curriculum development.
- Ensuring that the interest of the local condition of the respective countries in which the LIS schools operate is aggressively addressed in the curricular content.
- As in related to the above, LIS schools in the Muslim World should ensure conformity with the requirements of the established standards for e-learning programmes, such as the ones recommended by the IFLA, ALA, ALISE, and even beyond. This point was also recommended by Panahon II (2007), who recommended for the benchmarking of the proposed e-learning curriculum in European Studies against established quality standards. The LIS schools in the Muslim World should in addition develop their own standard that will serve the interest of the Muslim World, from the existing standards.
- Concrete decision on the modalities of curriculum review and revision period. In this regard, LIS schools in the Muslim World are expected to keep abreast of the latest happenings in the LIS field, as well as in the e-learning world.
- For the curriculum to succeed, all the LIS schools in the Muslim World are expected to make adequate arrangement/installation of state-of-the art e-learning technologies, infrastructures, and all other necessary teaching aids. These ensure proper curricular implementation.
- Determining the modes of delivery of the e-learning programmes. E-learning can be delivered in one of the following two modes (Chowdhury & Chowdhury, 2006): (i) Synchronous e-learning: this is a computer assisted e-learning environment where the instructor and the participants are involved in the course, class or lesson at the same time, through Web conferencing. While; (ii) Asynchronous e-learning, is a computer assisted training where the instructor and the participants are involved in the course, class or lesson at different times. For example, through Web-based training (WBT), e-mail, blogs and electronic bulletin boards. This method allows participants to access training materials at any particular time. Therefore, LIS schools in the Muslim World need to choose from any of the two modes.

- Networking among the LIS schools in the Muslim World for mutual cooperation. Further to this end, the networking among them would equally ensure consultation, and also advice may be sought from each other regarding the experiences of the LIS schools about the e-learning programmes. It is also expected that such networking would bring about exchange of resources and technology in the LIS schools.
- Another very crucial strategy is the need for training and re-training of the LIS faculty in the Muslim World, particularly, in relation to new ICTs and other emerging areas in the profession e.g. Knowledge Management (KM), Information Literacy, Information Architecture (IA) and Digital Libraries (DL). Refreshing academic staff knowledge is a very critical factor to the success of the e-learning programmes.
- LIS schools in the Muslim World should avoid overloading the e-learning curriculum with courses that are not directly relevant to the programme of study. There is the need to determine the level(s) of the LIS programmes and the courses to be offered in those level(s).
- A further strategy may involve the need for academic staff exchange among the LIS schools in the Muslim World. This could bring cross-fertilization of ideas from the experiences of the academic staff in relations to the running of the e-learning programmes. Also, those LIS schools that are advanced technologically may be required to provide a helping hand to those that are not so fortunate.

Towards this, the paper is motivated by the need to develop a framework that takes into consideration critical aspects in curriculum development. The diagram in Fig. 1 indicates the proposed framework for developing the e-Learning curriculum.

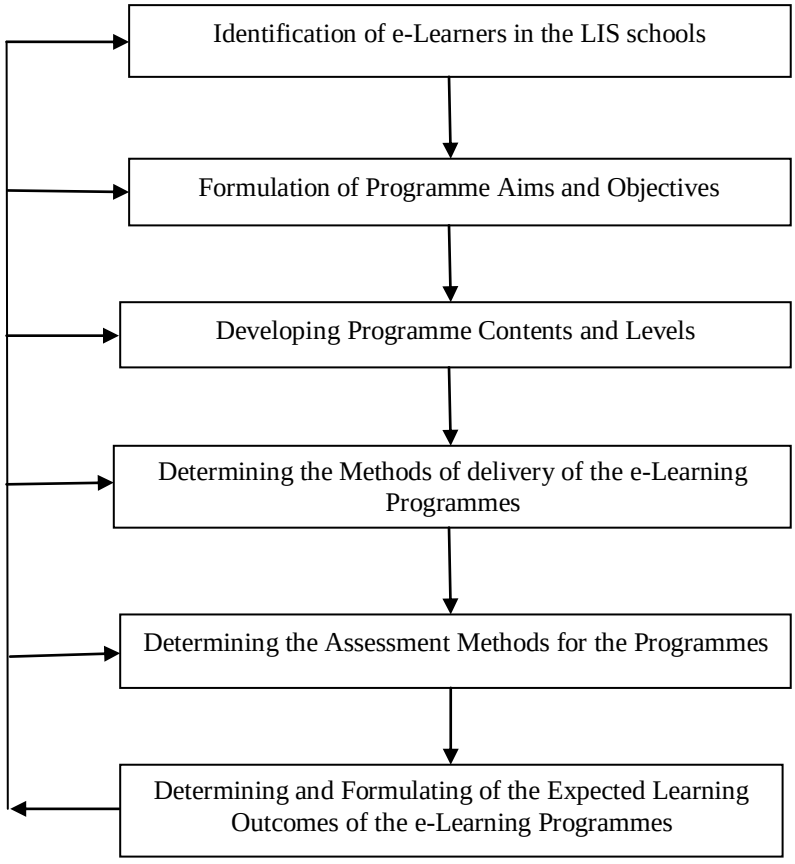

Figure 1: A Proposed Framework for Developing an e-Learning Curriculum for LIS schools in the Muslim World (Model adapted from the Framework for Developing e-Learning Programmes. Lewis and Whitlock, 2003, p. 2)

Challenges of Developing an e-Learning Curriculum

Although e-learning hold enormous potentials for enhancing learning in a flexible and cost effective manner, they could be severely affected by several challenges. Some of these challenges include:

- Technology Challenges: Technology is a basic requirement for the development of any prospective e-learning programme, and this is due to the fast changing nature of the technology which keeps on changing by the day. Therefore, in order to ensure the overall success of the e-learning programmes in the LIS schools in the Muslim World, appropriate hardware and software must be provided, in addition to adequate number of computers, Internet access, audio/video, as well as a robust LMS system.
- Personnel Challenges: Another critical challenge is the need for highly skilled personnel who will be expected to be keeping abreast with new skills and knowledge, particularly, technology. Thus, it is worth mentioning that e-learning programmes cannot thrive if the institution running it lacked skilled manpower. Therefore, there is the need for highly skilled ICT faculty to run the programmes.
- Administrative and Financial Challenges: The success of any e-learning programme rest on proper administrative and financial support, without which no any meaningful progress can be recorded in that regard. Consequently, in order to ensure the success of the e-learning programmes in the LIS schools in the Muslim World, adequate administrative and financial support must be provided by the respective parent bodies of the LIS schools.

Prospects

The prospects of e-learning in the LIS schools in the Muslim World are many. Some of which are as follows:

- Widening opportunities for LIS education in the Muslim World.
- Facilitate knowledge transfer between LIS schools in the Muslim World.
- Facilitates change and innovations in LIS education in the Muslim World.

Conclusion

This paper has reflected on the benefits and strategies for developing an e-learning curriculum in LIS schools in the Muslim World. It also discussed the likely challenges and prospects of e-learning programmes in the LIS schools. Thus, it is obvious and evident from the foregoing discussions and accounts, that e-learning has grown extensively in recent years to become a new approach to instruction of LIS education in the Muslim World.

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