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Incorporating Information Technology in Library and Information Science Curriculum in Nigeria: A Strategy for Survival in the 21st Century

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Introduction

As Library and Information Science (LIS) education moves into the 21st century changing society where changes occur due to the emergence and advancement in Information and Communications Technologies (ICTs), which requires the LIS professionals to acquire new IT skills for survival, Nigerian LIS schools are expected to brace up for this challenging situation. The influence of Information and Communication Technologies (ICTs) is now manifested in every sphere of human endeavor including the LIS field which is considered by many writers (Bavakutty, Nasirudheen and Abdul Majeed, 2008; Karisiddappa, 2004; Minishi-Majanja, 2007) as pervasive. Abubakar (2009) observes that we now live in a changing society where information technology has taken the centre stage and is accompanied by massive increase in knowledge which leads to a new paradigm in the LIS field. Similarly, Mohammed (2008) has noted that the advances in the sciences and in the application of Information and Communication Technologies (ICTs), particularly the Internet, Intranet and other network technologies have continued to impact positively on the methodologies of library and information service delivery, education and training of information professionals as well as in the area of information seeking behaviour and use. Thus, ICTs have now become common features in all fields. Mêgnigbêto, (2007) notes that the inclusion of ICTs into many professions has led to today's society been addressed as the Information Society

The dramatic changes in the global information environment, where ICTs serves as the driving force has led to very high expectations on the part of LIS schools across the globe. The expectation is centered on the need to

produce graduates that will survive in the 21st century dynamic information arena. Indeed writers like Lancaster (1994) have observed that the LIS field, more than any is the most severely challenged by ICTs as such it requires visionary curriculum. Varalakshmi (2006) opined that the 21st century information professional must possess skills in selection, content management, knowledge management, organization of information on intranets and the Internet, research services, developing and maintaining digital libraries, and bringing information resources to the desktop which requires educators to assess the skills needed so as to prepare the students for employment challenges. The foregoing has indicated that the infusion of ICTs in LIS curriculum in Nigeria has become inevitable for obvious reasons one of which is the strategy for survival. According to Minishi-Majanja (2007) ICTs are significant in the achievement of LIS educational goals/objectives and the fulfillment of the primary tasks of LIS schools .Thus, the current trend now is the global interest in LIS education has been shifted towards reforms in the LIS curriculum in order to accommodate the emerging ICTs. Miwa (2006) has noted that due to the rapid shift towards an information and knowledge-oriented society, information professionals need new skills to take advantage of ICTs. Consequently, many colleges and universities have modified their curricula to emphasize ICT. Nigerian LIS Schools are not exception.

Concept of Information Technology

The concept of Information Technology (IT) has been described in the library literature in different ways. Wilson (1992) defined IT as, "it is the means by which science is used in the collection, storage, processing and movement of information". Womboh and Abba (2008) stated that ICT and IT (Information Technology) are similar terms that are used interchangeably. They cited de Watterville and Gilbert (2000) who defined ICT as the acquisition, analysis, manipulation, storage and distribution of information; and the design and provision of equipment and software for these purposes.

Other scholars sees the term information and communication technology as a term that involves a lot of activities related to information handling and processing. For instance Shariful Islam and Nazmul Islam (2006) considered ICT as "the use and application of computers, telecommunications and microelectronics in the acquisition, storage, retrieval, transfer and dissemination of information". According to Adesanya (2002), IT permits dissemination of information of greater value effectively and efficiently to the world at large through large number of media (wide variety of sources) e.g. computer databases, Internet services, online information retrieval, compact disks, etc.

Curriculum Defined

The word "curriculum" comes from a Latin word "currere" meaning a racecourse which until recently, has been regarded as a standardized ground covered by students in their race towards the finish line and an academic qualification (Kigongo-Bukenya, 2003). Various definitions of "curriculum" have been provided by scholars and writers. According to Ocholla (2000) a curriculum is a fundamental part of any education or training programmes which gives information on content, purpose, methods, etc. of a programme or course of study. Similarly, the American Educators' Encyclopedia (1991) stated that 'a curriculum' is a complex term that has no agreed upon definition. Some educators defined it as comprising all planned experiences that are results of what teachers do. Others expand the definition to include all the experiences that a learner has at school, whether or not planned, to reach the institution's broad goals and objectives. Such experiences may consist of a pattern of courses, guidance, specific instruction, physical activities, opportunities for

experiences, testing and evaluation…curriculum should be reasonable, complete, have goals and objectives, reflect planning, relate to instruction and learning theories, consider the learner, have criteria for evaluation, be capable of being evaluated, and reflect a sound educational philosophy. Curriculum is more than just a programme of studies or a set of sequence of courses to be followed by the students.

Ross (2000) in her definition stated that a school's curriculum consists of all those activities designed or encouraged within its organizational framework to promote the intellectual, personal, social and physical development of its students. It includes not only the formal programme of lessons, but also the informal programme. Teaching and learning styles strongly influence the curriculum and in practice they cannot be separated from the curriculum. The foregoing definitions clearly points to the fact that a curriculum is a series of learning experiences as well as an instrument that is use in training prospective students in a school, so as to impart in them the skills relevant to their chosen professions.

Brief Overview of LIS Education in Nigeria

The development of LIS education and training in Nigeria has become a main topic of discussion among LIS educators in the country, and has been extensively discussed by scholars such as Ochogwu (1992), Agada (1985), and in recent years by Aina (2007), Ibrahim (2007), and Mohammed (2008). LIS education and training dates back to 1960 when the first LIS School was established at the University College Ibadan with the assistance of the Carnegie Corporation of New York, after Harold Lancour's recommendation. Prior to that period training for the profession was mostly done abroad. However, the UNESCO seminar on the development of Public Libraries in Africa held at Ibadan in 1953 which recommended the establishment of a limited number of library schools was considered as the foundation stone for library education in Nigeria (Abubakar, 2009).

The earliest LIS training(s) were meant to prepare the students for the British Library Association examinations. However, with the passage of time the need for more LIS training became desirable. According to Fayose (1997) due to increased demand for library and information professionals in the 1960s and throughout the 1970s, five other university-based library schools were established at Ahmadu Bello University, Zaria, 1968; Bayero University, Kano, 1977; University of Maiduguri, 1978; Imo State University, 1981; University of Nigeria, Nsukka, 1983. Also the earliest LIS educators were either foreigners or locals who had received their education abroad.

The beginning of the 1990s witnessed an expansion in the number of LIS schools in Nigeria which are established in various institutions. According to Diso and Njoku (2007), the subsequent establishment of federal, state and private universities has now brought the numbers of such library schools to more than a dozen which continue to grow with the growth of private and state universities. Presently, LIS education in Nigeria is also provided in Polytechnics and Colleges, as well as in some major libraries.

Paradigm Shift in Global LIS Education and Curriculum

With the advancement in Information and Communication Technologies (ICTs), the nature of information and information environment is changing dramatically. It is without doubt that information is considered as the bedrock of societal development particularly in this 21st century. The increase need for information, as well as the changing situation in the LIS field has therefore necessitated that LIS Schools worldwide should devise new approaches in order

to be responsive to the changing needs and demands. Thus, there is the need for new skills and training for LIS practitioners which is expected to be reflected in the curriculum of LIS Schools in order to accommodate the changes. LIS curriculum is the mirror to all LIS programmes offered in an institution; as such it is expected to be dynamic. Rehman (2003) has noted that Library and Information studies (LIS) has undergone major changes during the last couple of decades whereby changes in the names of schools, degree titles, and program offerings have become a common trend. In a similar situation, Beheshti (1999) has reported that in the past decade, more than 50% of LIS programs in the United States and Canada have completely revised their curricula.

According to Kavulya (2007), recent trends in ICT have witnessed developments in internet and multimedia technology which is the key to the vastly increasing speed and quantity of information transfer across the global networks. This led to proliferation of electronic resources such as e-journals, e-databases, e-archives and digital libraries. The adoption of a wide range of ICTs calls for training that enables graduates to develop information systems which will help people to meet their information needs efficiently.

The contemporary information arena in which ICTs serves as a driving force has meant that the LIS field has to take advantage of the emerging technologies i.e. the Internet, Intranet and other new technologies for training of future information professionals to assume their expected roles. Minishi-Majanja (2003) has noted that the rapid development of ICTs, has meant that LIS curriculum and structures have to be reorganized, infusing greater ICT knowledge and skills into courses and providing more hands-on practice. Also Lim (1999) opined that the emergence of the concept of the virtual library provides the opportunity for library schools to restructure their curricula and to make them more relevant to the needs of the profession in the 21st century. In other words the curriculum should be built around the virtual library model. Thus, it is now a common practice to find LIS Schools struggling to infuse ICT related courses in their curriculum which is expected to give them new lease of life in the training of their students in the 21st century.

Due to developments in ICTs, information professionals whose fundamental mission is to collect, organize, store, retrieve and disseminate information have faced new challenges, because of the change in the nature of information. Consequently, they need additional skills to be able to fulfill their mission (Mêgnigbêto, 2007). Malekabadizadeh, Shokraneh and Hosseini (2009), observes that the essential role of librarians and information scientists in providing access to information for development means that LIS departments must provide dynamic educational system which necessitates basic changes in the curriculum. In addition, the curricula should include skills related to designing, consulting, and improving information systems. Mohammed (2008) concluded that due to the need for new competencies expected in the information /digital age, LIS schools should continually review their curriculum to fit the contemporary age expectations.

The need for Incorporating IT in the Curriculum of Nigerians LIS Schools in the 21st century

Going by the current scenario in the LIS field at the global level, the need for integrating IT in Nigerian LIS curriculum in the 21st century cannot be over emphasized. Although IT development in Nigeria is moving very slowly, it has become extremely necessary for Nigerian LIS schools to adopt these ICTs and incorporate them into their curriculum if they are to succeed in the contemporary information environment. Also there should be a fundamental shift in LIS training in Nigeria to be inline with the current global trends. Diso and Njoku (2007), observes that the library of the 21st century has been appropriately termed as a digital library. However, the library in the 21st century Nigeria will have to combine the digital and traditional library elements because of low ICT literacy. They also pointed out that training of the information

professionals of the 21st century Nigeria should focus more on the aspect of digital libraries which the curriculum is expected to reflect.

Kavulya (2007) has noted that the term "digital library" generally implies digitization of library services and making the contents of any repository accessible across electronic networks. Also the nature of the digital libraries envisions LIS education that will imparts new skills, competencies, attitudes and values that will enable the professionals to manage digital information systems. Nigerian LIS Schools are therefore expected to build their curriculum around the virtual or digital library model whereby future LIS professionals will be able to cope and function well in the 21st century. Abubakar (2009) has stressed that there is the need for diversification of courses in Nigerian LIS Schools to include new subjects such as knowledge management, IT skills (networking, internet skills, database management, websites designs, online reference chart), publishing, multimedia applications, etc. in order to make the training more relevant to the emerging market in Nigeria.

Similarly, another very promising and emerging technology that ought to be integrated into the Nigerian LIS education is the internet, which provides access to global networked resources. The present day LIS services demands that internet needs to be exploited as a very important source of information that is required in the collection development strategy as well as information service delivery. Consequently, in view of the expected benefits of the internet in the global educational system, it is expected that the potential information professionals to be produced by the library schools would be able to operate it effectively for service delivery, hence the need for its inclusion in the LIS curriculum. Additionally, the use of the Internet will be of immense benefits to the teaching and learning process in the LIS schools. Igwe (2005) notes that an appropriate hybrid of teaching and learning methods through the use of the Internet will provide meaningful learning environment in library schools in Nigeria. Also it would be achieved by steady connection to the information super-highway which would enhance the schools capacity to respond to the new challenges in information processing and dissemination.

Challenges

The foregoing discussions point to the fact that it is imperative to incorporate IT in Nigerian LIS education which calls for a radical reform in the curriculum of Nigerian LIS Schools. However, the efforts of the LIS schools in Nigeria is thwarted by a combination of factors some of which are as follows:

1. Poor Governmental support to LIS schools. This has been a lingering problem. In addition, the Nigerian government has not shown enough commitment to the educational system to which LIS education belongs. LIS programmes are not properly funded which resulted in the backwardness of the training(s) provided in Nigerian Library and Information Schools.
2. Inadequacy of reliable infrastructure that will support the full incorporation of IT in the LIS schools. The major problems here include that of incessant power failure, lack of ICT policies in the country, poverty of ICTs in the LIS schools as well as low and erratic level of Internet connectivity which all serve as a stumbling block to whatever efforts made. Ocholla (2003) has noted that African countries are generally ICT poor, which is as a result of variations in their level of socio-political and economic discourse as well as development. Thus, the use of ICT in teaching, learning and research is extremely problematic.
3. There is also the problem of lack of regular and continuous review of LIS curriculum in most Nigerian LIS Schools.
4. Lack of IT literate LIS educators in the country. This indeed serves a very strong constraint to LIS education and training in the 21st century. It

must be stressed that no any meaningful training can be achieved in the 21st century without IT literate faculty.
5. Non-challant attitude of the Library Associations to LIS education in Nigeria. The various professional associations especially the Nigerian Library Association (NLA) and the National Association of Library and Information Science Educators (NALISE) have not shown enough commitment to the issue of LIS education in the country.

Prospects

In view of the major challenges identified, the prospects of incorporating IT in LIS education curriculum in Nigeria lies in the following areas:

1. More governmental support to LIS education in Nigeria. The Nigerian government must give priority to the educational sector in general without which no any progress can be recorded in the area of LIS education. LIS programmes must be properly funded so as to ensure that they succeed in this 21st century.
2. Improvement in basic Infrastructure such as electricity, reliable Internet connectivity, as well as the provision of state of the art ICT facilities in the LIS schools.
3. The need for regular and continuous review of the curriculum so as to incorporate new and emerging areas especially in the area of ICTs Also there must be a radical shift in LIS education. In this regard this paper agree with Diso and Njoku's view that the training of librarians requires a radical restructuring especially in the area of curriculum in order to produce information professionals suitable for providing services in a digital based library. Also LIS teachers must play a leading role in changing Nigeria's information environment.
4. Recruitment of IT trained LIS faculty. There is a serious and dire need of IT based lecturers in the LIS schools to provide the necessary training needed in the 21st century.
5. More commitment is required on the part of NLA and NALISE to LIS education. The two associations need to come up with a common stand and speak with one voice. They should also realized that LIS education in Nigeria is expected to be in line with the current global trends where the issue of IT has become a central phenomenon

Conclusion

The paper has justified why the incorporation of IT is necessary in the 21st century LIS education curriculum in Nigeria. However, if Nigerian LIS education is to make an impact in the 21st century global LIS arena, far reaching measures has to be taken to provide the adequate IT resources and facilities relevant to the 21st century training programmes. All hands must be on deck to ensure that the country has put in place a very dynamic curriculum for LIS education and training that will match the requirements of the millennium. The present IT situation is not encouraging as such there is a dire need for a more serious and concerted efforts by the Government and the LIS profession. This paper strongly supported the idea put forward earlier by Igwe (2005) who suggested that Nigerian LIS schools should learn from the experiences of others who are advanced in technological application so as to provide a working system necessary for the advancement of library education in Nigeria in the 21st century.

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