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Operational Challenges of Library and Information Science Education in a Digital Environment: The Nigerian Perspective

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Abstract

ICTs have changed LIS education and library practices globally. Today, LIS graduates need new skills and competencies to function effectively and remain relevant in this field. This paper discussed current trends and developments in LIS education around the world, the state of LIS education in Nigeria, with a focus on a total reformation of the curricula to ensure regular update of teaching facilities to be relevant in a digital environment, and operational challenges facing LIS education in Nigeria, which include, among other things, the government's persistent failure to adequately fund education in general and LIS education in particular, paucity of funding for LIS programmes and inconsistency in nomenclature. It further examines how to address the issues raised, particularly by having the LIS schools build operational plans that are focused on making an effect and encouraging support to raise additional money. The report emphasizes in its conclusion that LIS education in Nigeria can be more significant in the digital age provided curricula and the necessary teaching resources and infrastructure are in accordance with the most recent global trends.

Keywords: *LIS education, ICTs, LIS Degree Awards, Curricular, Nigerian universities, Digital environment, CCMAS*

Introduction

Library and Information Science Education (LISE) globally, has undergone enormous changes due to improvements in various aspects of the society whether technical or otherwise. In other words, there has been a major shift in LIS education, particularly in the last few decades, which has led to fundamental modifications in all of its structures. Such transformations are extensive, universal, and profound. The LIS programme is now viewed as an interdisciplinary field of study that has integrated many new and related fields, such as information science, computer science, information system, knowledge management, information architecture, digitization, content management, and archives related areas. This is in addition to the recent trend in globalization and its seeping impact on LIS education. This fundamental revolution has repercussions for the field and has caused LIS schools,

particularly in developed economy, to offer a variety of joint degrees, hire new faculty, change the curriculum and delivery methods, and alter the job market for LIS graduates who now need new skills and competencies.

Assefa and Wang (2018), noted that many new topics are being introduced in the LIS education, making it to become more inter-disciplinary and diversified. They further observed that the scope of educational programmes in LIS are expanded or enlarged by the inclusion of courses in data science, research data management and digital humanities among others. It is also important to highlight that these improvements have been driven by advances in information and communication technologies (ICTs). ICTs have changed LIS education and libraries in general, and their introduction into the LIS sector necessitates that LIS education be both market-driven and technologically focused.

Due to the aforementioned situation, LIS programmes must adapt and update their curricula to satisfy the demands of the new information era, which revolves around technology. In addition, the LIS profession has seen a lot of changes as a result of shifting employer needs. The names of LIS education programmes, LIS degree awards, and courses have all altered as a result of global infusion (Okello-Obura & Kigongo-Bukenya, 2011). For this reason, it becomes crucial that LIS programmes must be modified and expanded to accommodate the new dynamic environment, particularly in the domain of ICTs. The need for comprehensive and organized education programmes for LIS professionals becomes apt (Lawal, 2009). However, it is important to note that LIS education has undergone a variety of changes in both developed and developing nations. For instance, it has been extremely slow in developing countries where LIS schools still largely adhere to traditional curricula and pedagogical approaches, which may be largely attributable to their underdeveloped infrastructure and inadequate manpower in comparison to what exists in developed nations (Abubakar & Farouk, 2018).

The need for an appropriate, robust, and vibrant curriculum that will meet the demands of the changing environment has recently emerged as one of the major challenges facing LIS education, even though it is difficult to change or modify the curriculum, particularly in the area of ICTs. This is so that the necessary key actors can properly participate in curriculum development, which has been a constant problem for LIS schools all over the world.

The objective of this article is to examine the latest developments in LIS education in Nigeria, with a focus on LIS education and training at Nigerian universities. In addition, it examines the most recent global best practice for LIS education. The article outlines the challenging operational issues impeding LIS education in Nigeria, stressing the effects they have on the profession, and finally suggests the way forward.

Literature Review

Global Trends in LIS Education

Today's LIS education has undergone a complete and radical transformation. In

other words, during the 1990s, the rapid expansion of ICT and social networks has altered not only the way information is utilized, but also the structure of library services and LIS education generally. Researchers have asserted that our world has become a global village. The development of digital technology and international cooperation among nations, institutions, and organizations has also been heightened by globalization, leading to a significant growth in virtual and online information resources and retrieval systems. Based on the aforementioned, one may conclude that globalization's significant developments and advancements have given LIS education a whole a new dimension, consequently, the LIS environment is currently facing a number of difficulties that result from the discipline's evolving nature. This significant growth has a profound and inevitable impact on LIS education. The challenges posed by those dynamics necessitate that LIS institutions all around the world evaluate and adjust the content of their curricula in order to provide their graduates with the information and abilities they need to be successful in the always evolving LIS marketplace.

Furthermore, the study by Baschler (2022) on the latest trends in library and information science, identified key new areas that have advanced new trends in the LIS education in developed nations in three categories. The three trends are:

i. Collection Management which is now a major component of degree in LIS are: Electronic Resource Management (ERM), Cloud Computing, Federated Search (FS), and Internet-of-Things (IoT)
ii. User engagement which includes: Digital display, Gamification/ augmented reality, Makerspaces, User-Focused Interface (UFI)/ Artificial intelligence (AI), big data and data visualization and mobile-based library services.
iii. Security: These are some innovations that help the library to maintain security of information resources. They are: Single Sign-on (SSO), Radio-frequency identification (RFID).

The 'Information Schools' (iSchools) movement is another trend that is popular in the United States and, in fact, throughout the rest of the world (Chakrabarti & Mandal, 2017). The main goal of the iSchools organization, according to them, is to promote the information industry in the twenty-first century. They believe that education, research, and professional development are the three areas around which the iSchools' operations revolve.

The iSchools membership directory covers 101 universities globally, according to Weech (2019). Information Science, Information Studies, Information Systems and Management, and LIS are examples of members of iSchools that have retained their original names while others have modified them to simply "Information School" (iSchool). Along with schools of mathematics and information sciences, media and information, convergence science and technology, etc., a few schools

of computer science and informatics are also members of iSchools (Tonta, 2016).

On the other hand, Salawu and Igwe (2018), claim that the inter-disciplinary nature of LIS has led to LIS schools changing the names of their programmes degree titles, and programmes offered and in some cases even offering joint degrees with other faculties. This reflects the breadth, depth, and diversity of careers requiring information and knowledge management.

The fact that many LIS schools now offer a variety of study programmes which include archive administration, archival imaging technology, digital curation, digital information services, health informatics and knowledge management among others, is another trend in the LIS landscape. Weech (2019) asserts that the broader definition of what defines the information professions may be the cause of the growing specialties within American Library Association (ALA) recognized programmes.

Numerous studies on various facets of LIS education have been done. For instance, Malik and Ameen (2020) employed interviewing techniques and a qualitative methodology to explore the present and future career prospects for LIS graduates in Pakistan. According to the report, the job market for LIS graduates is still largely conventional. However, it was also discovered that there were non-conventional work marketplaces in the nation. Mole, Dim, and Horsfall (2017) used a conceptual framework and critical analysis to analyze the idea and characteristics of LIS in relation to knowledge societies. According to the survey, LIS personnel need to be equipped with the necessary ICT skills and competencies. As a result, the authors claim that re-engineering of LIS education in the areas of content and methods of training for the LIS profession is always necessary in order to fulfill industrial needs for knowledge societies.

Wei, Chumg, Li, and Li (2020) used a bibliometrics technique to study trends in LIS education in China and discovered that the country has been giving LIS education more and more attention lately. Another trend identified by the study was the increase of practical courses to the curriculum. In a different study, Bronstein (2009) used websites to assess the curricula of 30 LIS departments across 21 nations to identify current trends. The study concluded that the majority of the courses it looked at were related to information content, using Wilson's typology to code the data. The second largest category of courses in the curriculum was technology. The study came to the conclusion that LIS programmes should strive to offer the broadest variety of skills and competences essential in preparing their students for all positions in the information environment given the dynamic employment market.

The courses included in the curricula of nine LIS master's degree programmes offered by Thai universities were compared to the IFLA standards for professional library/information programmes by Saladyanant (2014). The study found that there were 12 courses on assessing information and designing responsive services, 28 courses on information

resources management, and 43 courses on applying ICT to all aspects of library and information products and services. Similar to this, Hu (2013) used a quantitative approach to look at 14 LIS schools in the US. According to the survey, seven out of the fourteen LIS institutions (or 50%) provide IT-related degrees through their curricula. Some institutions have amalgamated with information technology or computer science programmes The study also revealed that the School of Information, University of Michigan at Ann Arbor, changed to offer the Master of Science in Information as a replacement for the traditional Master of Library and Information Science, and the School of Information, Indiana University, merged with their Computer Science and Informatics programmes Meanwhile, the University of Illinois at Urbana-Champaign was offering multiple IT-based degree programmes like the Specialization in Information Technology.

Xue, Wu, Zhu, and Chu (2019) used content analysis, both quantitative and qualitative, to investigate the difficulties facing LIS education in China and the United States. According to the survey, there are several problems with LIS education in China and the US, particularly with certification, identification, prospering, improving the curriculum, and course delivery methods.

The State of LIS Education in Nigeria

Any discussion on LIS education in Nigeria today must take into account how far the discipline has come since the University College Ibadan established the country's first university-based LIS School. The most recent change is the expansion of LIS programmes at colleges, universities, and polytechnics across the nation. Therefore, it is reasonable to claim that LIS education in Nigeria is currently at a turning point. It is important also to be aware that LIS education has expanded throughout the nation, primarily in recent years. The need for more LIS schools to teach LIS professionals who will run the libraries affiliated with such institutions is further increased by the fact that a lot of new institutions are being formed.

Given the expanding development, LIS education in Nigeria has achieved its pinnacle, with numerous universities (both public and private) providing a variety of programmes at the bachelor's, master's, and PhD levels in LIS, even if they are organized under various faculties. With the sole purpose of producing qualified library and information science professionals, some LIS schools currently exist in Nigerian universities under faculties of education, social sciences, and management sciences, while few are under faculties of information and communication, etc. (Abubakar, 2019; NALISE,2020). It 'is important to remember that in the 1990s, the majority of LIS departments were called Departments of Library Science, Library Studies, or Librarianship. The names of many departments have, however, recently been altered to Department of Library and Information Science/Sciences. Currently, the following are some of the well-known names for LIS departments at Nigerian universities: Library and Information Science, Library and Information Sciences, Library, Archival and Information Studies,

Library and Information Studies, Information Resources Management, etc.

Nomenclature-wise, LIS departments in Nigerian institutions provide a variety of bachelor's degree programmes including Bachelor of Library and Information Science (BLIS), Bachelor of Arts in Library and Information Science (B.A. LIS), Bachelor of Science in Library and Information Science (B.Sc. LIS) where LIS is offered together with other academic subjects in the Sciences, Social Sciences or Arts as in University of Nigeria Nsukka and Bayero University, Kano, which in addition to the above awards B.Tech (Library and Information Science/Technology). While at the postgraduate level, LIS schools offer variety of Postgraduate programmes. For instance, in Bayero University, Kano, LIS School offers Post-Graduate Diploma in Information Management (PGDIM), postgraduate diploma in Library and information science (PGDLIS), Master of Library Science (MLS), Master of Library and Information Science (MLIS), Masters in Information Management (MIM) and PhD in Library and Information Science (Abubaka, 2021).

In a similar vein, Saka (2015) claims that in University of Ibadan (UI), LIS School offers post-graduate programmes with specializations in a variety of fields, including Masters in Library and Information Studies (MLIS), Masters in Archives, Records and Information Management (MARIM), Masters in Health Information Management (MHIM), Masters in Publishing and Copyright Studies, and PhD. Post-graduate programmes in many fields are offered by LIS schools in many other universities.

The undergraduate course content from the NUC Core Curriculum and Minimum Academic Standards (CCMAS) includes the following courses: Introduction to Library and Information Science, Introduction to Digital Libraries, Introduction to Library Application Packages, Organisation of Knowledge I, Library and Information Services for Children and Adolescents, Serials Management, Introduction to ICT in LIS, Organisation of Knowledge II, Collection Management, Reference and Information Services in LIS, Hardware and Software Technologies, Indexing and Abstracting, Introduction to Archives and Records Management, Publishing, Book Production and Trade, Preservation, Conservation and Security of Library and Information Resources, Database Design and Management among others (NUC, 2022).

The National University Commission has decided to domicile the LIS department in the Faculty of Education as contained in the CCMAS, thereby awarding B.Ed LIS, and this introduced teaching practice for LIS students in the place of practice librarianship in an effort to address the curricular issues, nomenclature, and domiciliation in LIS education in Nigeria.

Operational Challenges of LIS Education in Nigeria

It is envisaged that LIS education would follow international best practices. This means that if significant progress is to be

made, international best practices and criteria cannot be treated carelessly. Furthermore, in any LIS education, the dominating local situation should also be given top importance. Although there has been a significant increase in the number of LIS schools in the nation, it is pertinent to note that the quality of LIS education in Nigeria is substantially hampered by a number of issues. Finding students who are actually interested in taking the course as their first option has proven difficult in LIS education (Salawu & Igwe, 2018). From its inception till date, this problem has persisted and students with little or no passion for the course are admitted. As a result, many LIS schools continue to turn out graduates who have no interest in the field and are only there to earn a degree. According to Abubakar (2019), Paulley (2019), Saka, Garba and Zarmai (2018), Abubakar and Farouk (2018), the following are some significant challenges:

a. Inadequate funding for programmes in LIS and education in general. The issue of money seems to be the most pressing of all the difficulties affecting Nigerian education, especially at the university level. The country's government has not allocated 26% of its annual budget for education, as advised for developing nations by UNESCO. Thus, it is abundantly obvious that the government's ongoing inability to provide funding for education at all levels has seriously harmed the LIS curriculum at Nigerian universities and other academic institutions. Due to this circumstance, physical facilities, the learning environment, overall standards have declined, and ICT facilities have not been purchased in line with current worldwide trends.
b. Insufficient facilities, instruction, and high-quality learning materials as a result of ongoing underfunding.
c. The absence of key stakeholders' involvement in LIS education issues. Stakeholders are frequently not completely involved in the construction of curricula. Since the beginning of LIS education in the nation, this issue has existed. The LIS stakeholders were not completely involved in the production of the outgoing BMAS nor the new CCMAS. The effect is seen in the NUC now forcefully domiciled LIS departments in education faculties or colleges as the case may be.
d. The growth of LIS programmes without regard for accepted criteria; in other words, there is no check on the country's mushrooming LIS programmes. For instance, cataloguing and classification are listed as elective courses in several Nigerian educational institutions. In line with this, Ochogwu and Nwokocha (2014) lament that the rate at which LIS schools are sprouting up without giving proper consideration to standards in the areas of curriculum development and resources is not a healthy development.
e. Inconsistencies in the nomenclature and organizational structure used by LIS departments across the

nation. Some LIS programmes are domiciled in the Faculty of Education, Social Sciences, and Management Sciences, while a small number are located within the Faculties of Information and Communication, etc. Each of these faculties awards a variety of degrees. Such an occurrence has over time led to misconceptions regarding the LIS programmes that are offered in Nigerian colleges. This also caused the NUC to compel the LIS department to move into the Faculty of Education, resulting in the issuance of a B.Ed in LIS (National Universities Commission, 2022). Secondly, there is a divide between librarians who are practicing professionals and those who teach library science. For instance, some LIS schools have Professor of LIS, Professor of Librarianship, some now has Senior Deputy University Librarian at level seven.

f. Incorrect design, implementation, and revision of LIS curricula as well as LIS professional bodies' non-participation in the accreditation of LIS programmes in Nigeria.

g. Insufficient exchange and connections programmes collaboration among LIS schools, and other forms of cooperative work on a local and global scale.

h. Dearth of LIS lecturers particularly those that have obtained their PhDs. While fundamental courses are occasionally designated as electives as noted above, the majority of newly founded LIS schools always tend to heavily rely on their institution's librarians and in certain circumstances the employment of visiting and part-time lecturers.

i. Finally, a persistent problem among Nigerian LIS professors is a lack of ICT literacy.

The way forward

a. LIS schools in Nigeria must re-examine their philosophical foundation and implement necessary proactive measures aimed at dealing with the challenges in the digital age in order to meet the demands of the society and to also be in line with the global dictates in LIS education. This will help them flourish and continue with its main mission of educating and training of LIS professionals in Nigeria and to join the modern trend of globalization of LIS education. We live in an information society where advancement of ICTs and telecommunication networks is accompanied by a corresponding increase in knowledge and a rapidly growing flow of information, therefore emphasis on new perspectives in LIS education in Nigeria and other developing countries has become crucial. The LIS curriculum must be adapted to meet the needs of this new information environment, which calls for new abilities in information finding, processing, and use. In the first place, LIS education should be

technologically up to date if it is to prepare graduates for the rapidly evolving digital world.

Additionally, the following factors need to be prioritized:

j. Modifying LIS curricula to incorporate new topics like ICT capabilities (Internet searching abilities, database management, website design and management, and networking). Others include publication, multimedia applications, data management, digital research, scholarly communication, information literacy, management of electronic resources, and refurbishment of library space. This supports the study of Tella, Olufemi, and Sunday (2018) using a survey technique on the ICT skills needed for hiring LIS workers in the digital age. The findings indicate that the most fundamental ICT skills required in the digital age are those related to word processing, spreadsheets/ Excel, PowerPoint presentations, database knowledge, email and Internet usage, hardware and software, site design, mobile technology, and social media. Narasappa and Kumar (2016) categorised the abilities needed for LIS professionals in the digital age into four viz: professional competencies, personal competencies, soft skills, ICT skills, and networking. Given the significance of ICT skills to current librarianship training, LIS schools in Nigeria should accept this challenge in order to meet the demands of the digital age. This is because companies in this digital age want LIS practitioners to be familiar with developing technology, which would make LIS training more valuable.

k. Another skill that LIS workers should possess in order to function in the digital environment is management. LIS workers need to have a basic understanding of management in order to properly manage libraries and other related organizations. Yadav and Gohain (2016) used a survey method to explore how Indian LIS graduates perceived the abilities required for employment in the digital age. The survey found that, among other things, the most advised talents were those related to budgeting, motivating people, public relations, and supervision. Thus, in order to ensure efficient management of information organizations in the digital age, LIS education in Nigeria should prioritize developing these crucial managerial abilities.

l. The reality that LIS professionals must not be exclusively employed in libraries in the digital age requires that LIS institutions instill entrepreneurial abilities in their aspiring graduates. As a result, LIS graduates would be entrepreneurial and capable of being self-sufficient whenever necessary. The LIS curriculum ought to include some skills like knowledge management,

competitive intelligence, change and innovation management, project management, etc. Agim (2020) made a similar observation, noting that the library profession has evolved beyond the gathering, organizing, and distribution of information resources and has instead become an ICT-based profession that calls for entrepreneurial skills in the digital age. He contends that business skills, information brokering, contingency skills, policy, critical, reflective, and creative thinking, as well as strategic planning, are ideal courses for LIS students in Nigeria.

m. Another crucial component that should be prioritized by LIS education in Nigeria is the development of research skills. Yadav and Gohain (2016) assert that developing research skills aids LIS professionals' technical writing and presentation abilities in addition to helping them perform better research.

n. The addition of courses with a basis in digital libraries, such as database creation and database management systems, artificial intelligence, is another crucial area that needs to be given importance in the digital era. Okeji and Mayowa-Adebara (2020) pointed out the critical need for digital library education in LIS programmes in developing nations, which will enable graduate librarians acquire the competences and skills they need to create and manage digital libraries in this digital environment.

o. Other crucial areas to take into account are information architecture, information policy, and indexing and abstracting services, all of which are crucial in the digital age.

Conclusion

LIS education has undergone a variety of changes in both developed and developing economies. The rapid expansion of ICT and social networks has altered not only the way information is utilized, but also the structure of library services and LIS education generally. This study highlighted the changes in the operational mode of the profession as a result of the global infusion of technologies into all human endeavors. It examined global trends in LIS education and the state of LIS education in Nigeria. LIS schools in Nigeria should recognize and accept the changes taking place in the profession globally and improve the quality of their programmes in order to produce skilled graduates who will be relevant in the digital space. LIS institutions in Nigeria must therefore acknowledge the changes occurring in the field globally and improve the standard of their curricula in order to produce graduates who are qualified and relevant to the digital age. The time calls for all hands to be on deck especially the key stakeholders in LIS education to ensure that Nigeria complies with the rules of the digital era.

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