SUSTAINABLE ADOPTION OF E-LEARNING IN TERTIARY EDUCATION FOR ENHANCING LIBRARY AND INFORMATION SCIENCE EDUCATORS: AN OVERVIEW OF BENEFITS AND POSSIBLE DRAWBACKS

By

Samuel Otsonu ABOH

Department of Library and Information Science,
Faculty of Social Sciences,
Federal University of Lafia,
Correspondence email: samaboh23@gmail.com or soaboh@education.fulafia.edu.ng. Phone No.: 08023935282

Abstract

Apparently, Sustainable Adoption of e-learning in Tertiary Education by Library and Information Science Educators: An Overview of Benefits and Possible Drawbacks has significant influence in the educational disruption caused by the unforeseen COVID-19 pandemic has brought forth an unprecedented revolution in the educational landscape specifically, in library and information science. Learning of various sort no longer have to be structured to a physical venue. The remarkable shift from traditional in-class strategy to more flexible options followed by the e-learning industry's skyrocketing growth shows no signs of slowing down. E-learning is increasingly adopted in the workplace for supporting library and information science professional development and continuing education; however, in higher education, the use of e-learning is predominantly necessary as a tool to support the teaching and learning process of library and information science professionals. As a relatively new priority for tertiary education, this article explores the prospect and drawbacks of e-learning adoption in tertiary education. It describes the concept of e-learning, classifications of e-learning, benefits of e-learning adoption and possible drawbacks of e-learning adoption in tertiary Education.

Keywords: Electronic Learning, Tertiary Education, Library and Information Science Educators, Learners.

Introduction

Ultimately, e-learning is the use of network technologies to create, foster, deliver and facilitate learning without space or time. With the continuous development of new and improved Information and Communication Technology (ICT) tools and applications, ICT has changed all aspects of day-to-day life activity (Kjellsdotter, 2020). It has drastically changed the way people undertake their personal and professional activities and has transformed the world into a global village wherein there is no geographic barrier for interpersonal and inter-organizational communication (Memon & Meyer, 2017). Similarly, ICT has brought significant reforms with positive effects and introduced a new trend in the education system and information practice.

Implementation of ICT tools in library practice for teaching and learning processes offers a wide range of benefits that collectively lead to a better and more efficient understanding of complex scientific concepts and procedures that are difficult to understand otherwise. Research shows that the adoption of ICT tools in the teaching and library practices increase the chances of students' learning output, equip students with 21st-century skills of digital literacy, assist in teachers' training, makes the course interesting, and prepares students well for competing in the global marketplace of information-rich society (Sayaf, 2021). In addition, incorporating ICT tools in delivering lectures support teachers in adopting innovative teaching practices and simultaneously enhances learners' curiosity and understanding, resulting in improved learning capacities and personal development (Akçayır, 2016; Al Shuaili, 2020). E-learning proffers a better knowledge in improving the library professionals and learners or users capacity to handle information services efficiently.

Furthermore, integrating advanced ICT such as simulation and augmented reality in education enables a better understanding of the scientific and complex phenomenon. It thus, improves students' understanding as human nature and behaviour are inclined to comprehend concrete aspects more readily than abstract ones (Akçayır, 2016). Given that the integration of technology enables the modification of human nature and cognition, in the current technological and digital literacy era, ICT tools are often regarded as artificial organs along with the biological ones in the core of human beings that allow the humans to continue transforming the world and also transforming themselves (Hasan, 2020; Sánchez-Sordo, 2019). It is believed that for some specific courses, it is challenging to keep students motivated by just delivering lectures in a traditional teaching style. In this way, sometimes, these courses are criticized as overly theoretical, non-creative, and non-innovative. Thus students find it boring and difficult to develop understanding to

the level they should have attained. Therefore, in such instances, Erdmann & Torres Marín, 2019; Gerbic, 2011 opine that it becomes essential and beneficial to aid the lectures with advanced ICT instruments such as gamification, simulations, scenography, and problem-solving and simulating practices. Indeed boosting the teachers and students with adequate information know-how enable them to deliver their services without space or time especially in the library clime.

Increasingly, the advancements in ICT have introduced the concept of electronic learning (e-learning). E-learning, other words known as virtual learning, online education, digital learning, library automation, e-library and distance education (Singh & Thurman, 2019), this diversify the teaching, learning and information seeking processes in the online environment. With e-learning, on-line classification and cataloguing (OCCL) have seamlessly address geographic barriers to the knowledge sharing of information seekers and teachers. Thus, Gotschall, 2020 asserts that it has become a flexible and affordable way of providing quality educational services to people with limited or no access to education facilities otherwise.

Subsequently, with an array of benefits of e-learning, such as flexibility in terms of time and space, widespread sharing of library and information resources, and support for social mobility, e-learning comes with its attendant challenges. According to Aboh, Faga, Abubakar and Odu, (2016) the key challenges include the absence of a traditional classroom environment, lack of teacher's control, unavailability of adequate ICT facilities, lack of ICT in most libraries, lack of staff training, lack of policy implementation (e.g., computers, internet connectivity), and shortage of financial resources for the ICT implementation (Tarhini, 2014). The problems in implementing an e-learning system become even more in developing countries because of insufficient infrastructure. Thus such countries are generally lagging in the race of e-learning adoption in tertiary institutions in library and information practice (Akaaka, Agena, Aboh & Omame, 2022). This typically explains the impact of information and communication technology on library services delivery under COVID-19 as a new norm in our modern societies.

During the current scenario of a global pandemic of COVID-19, whereby the usual routine is disturbed in all sectors, the education sector and indeed library and information services have moved away from its traditional operations. Many parts of the world are experiencing complete or partial lock down. At the same time, education institutions are closed, examinations are suspended, the teaching-learning process is interrupted, and students are deprived of learning due to restricted mobility.

In such circumstances, it has become necessary to envisage and discover the solutions that can help overcome the education loss and prepare the teachers and students or users of the libraries for such situations arising in the future. As the pandemic was sudden and education stakeholders were unprepared for such a situation, it has been challenging to adopt any alternative education system or completely change the library services such as e-learning or e-library. However, the developed countries with ample ICT resources and technology-based society have been much able to resume their educational cum library activities early in the pandemic without facing any significant obstacles or technological transformations. As a result of heavy workload on the library services, the emergence of ICT has enhance easy and speedy acquisition, organization and proper management of education, learning and library services (Akaaka, Agena, Aboh & Omame, 2022). However, the developing countries lacking enough resources for this sudden shift to online mode face substantial issues in resuming their academic and library activities. Sooner or later, many have now switched to online mode to some level, but still, they are struggling with turning this into a very smooth, effective and efficient service delivery.

Similarly, this paper undertakes a systematic review of the extant literature on e-learning to understand the opportunities and challenges for adopting an e-learning system and envisage different strategies, policies, and recommendations for effectively implementing e-learning at higher levels of educational institutions and their libraries. As a result, the paper offers a comprehensive guide for the government, administrators, library professionals and other education policy makers for conceptualizing, implementing, evaluating, and improving the e-learning systems at higher educational institutions.

Classifications of E- Learning

E-learning is the application of network technologies and skills to permeate learning at any given moment. Salawudeen (2012) described it as the delivery of individualized, comprehensive, dynamic learning content in real time aiding the development of communities of knowledge linking learners and practitioners with experts. E-learning is classified in different ways. According to Algahtani (2019), elearning can be classified based on extent of its engagement in education and based on the timing of interaction. On this premise, electronic learning is divided into two:

Computer-based e-learning and **Internet based e-learning.**

The computer-based electronic learning: comprises the use of a full range of software and hardware that are available for the utilization of Information and CommunicationTechnology. Computer based e-learning can be categorized into two: Computer managed instruction and Computer assisted learning (Algahtani, 2019).

In computer assisted learning, computers are used to provide interactive software as support tool(s) within the class or as a tool for self or individualized learning outside the class while in computer managed instruction, computers are used to store and retrieve information to aid in the management of education (Algahtani, 2011).

The internet-based e-learning is a further improvement of the computer-based elearning. It makes contents available on the internet, with links related to knowledge sources.

Zeitoun (2018) classified e-learning into three modes: (a) mixed or blended mode, (b) assistant mode, and (c) completely online mode. He explained that, the assistant mode supplements the conventional learning approach while the mixed or blended mode offers a short-term degree for a partly conventional learning approach. The completely online mode, involves the exclusive use of network for learning.

In line with Zeitoun's assertion, Algahtani (2011) described the completely online mode as "synchronous" or "asynchronous" by the application of optional timing of interaction.

The synchronous type allows learners to interact with the tutors and also among themselves through the internet at the same time using videoconferencing and chatting rooms. The synchronous type according to Almosa (2011) offers the benefits of instantaneous feedback. Synchronous e-learning involves same time interacting with an instructor via the web in real time, example; virtual classroom, Audio and video conferencing, chat, shared whiteboard, application sharing, instant messaging. It enable learners feel like participating rather than isolation. Immediate feedback is required. The asynchronous mode allows learners to communicate with the tutors as well as among themselves over the internet at different times using thread discussion and emails. In other words, it presents the learning content for the students to read, internalize, and download if necessary. Media such as e-mail and discussion boards facilitate it. Learners may be online at different time, it also allows participants to post and communicate to any other participant on the internet. Learners spend

more time to review and their contributions are considered to be more thorough than asynchronous mode. It is therefore, not interaction at the same time (Almosa & Algahtani, 2011). One of the advantages of asynchronous mode is that, it allows learners learn at their paces and convenience however, it does not afford the learners opportunity to receive instant feedback from the tutors as well as their fellow learners (Almosa, 2011) and (Aparicio, 2016).

Benefits of E-learning to Tertiary Education

The adoption of e-learning in higher education has several benefits. According to Klein and Ware (2013), Hameed (2018) and Wentling (2020), Information is the hub of knowledge that enhances learning at all levels especially in tertiary education. This infers that without adequate information and dissemination, no meaningful knowledge can be acquired; e-learning adoption in tertiary education provides the following benefits:

Flexibility: The issues of time and place are taken into cognizance. Every learner has the luxury of choosing the place and time that suits him/her. In agreement with this, Smedley (2020) noted that, the adoption of e-learning in higher education provides the institutions as well as learners with much-needed flexibility of time and place of information or lesson delivery.

Enhancibility: The efficacy of knowledge and qualifications make ease of access to a huge amount of information and delivery of services. Accordingly, (Aboh & Akilu, 2020) added that the availability of computer and internet as information resources, are of immense advantage to the adoption of e-learning for both the educators and learners.

Provides a discussion forum platform for learners to share ideas: Through this, barriers that hinder effective participation like fear of talking to other learners is eliminated. E-learning motivates students to interact with each other, exchange and respect different point of views. It eases communication and also improves the relationships that sustain learning. In agreement with that, Wagner (2018) noted that, electronic Learning provides extra prospects for interactivity between learners and tutors during content delivery.

It is cost effective: The learners need not to travel to partake in contents delivery. And provides learning opportunities for maximum number of learners. It compensates for inadequacy of academic

staff, library educators in tertiary institution, including instructors or teachers as well as facilitators, laboratory technicians etc.

It allows learners learn and carryout research at their paces. For example, the asynchronous method allows each learner to study at his pace and speed. Based on this, Codone (2011), Amer (2017), Urdan and Weggen (2020), Algahtani (2011), Marc (2012), Klein and Ware (2013) noted that, electronic learning enhances satisfaction and decreases stress. Adoption of e-learning has also become an essential component of academic institutions that provides opportunities for academic library users to seamless access varieties of reliable, updated, authentic and unlimited sources of information. Library and information service is an umbrella term covering all services obtainable in the library. This is not only applicable in library but also includes mobile library service, which essence is the provision of library service to clients outside the library building (Ezeani et al., 2015).

The above itemized benefits of electronic learning have been summed up by Holmes and Gardner (2016) who noted that, e-learning assess learners as they learn, and at the same time enhances their experiences in education, by way of interactivity suitable to community education, cultural diversity and globalization and eliminating limitations of venue and time. E-learning has facilitates and transforms academic activities especially in tertiary institutions and their libraries.

Furthermore, through e-learning, objectives can be achieved in the shortest possible time with little effort (Raba, 2015). Tutors and learners can accomplish and keep up with development as they obtain experience that is provided by seasoned specialist in different fields of knowledge.

According to Khan (2015), the impacts of electronic learning on educational ethics are ensured. This is because, the e-learning environments are tolerant and are good ways of offering equal opportunity for individual to access the information world irrespective of locations, age and as well as ethnic origins, and races.

Alsalem (2014), also noted that, e-learning environment aids learners to develop full confidence in them-selves for the reason that tutors are no longer the solitary knowledge source; it makes the leaner become advisors and guides instead.

Electronic learning also helps in the preparation of the society to globally communicate and to dialogue with others (Zeitoun, 2018).

According to Algahtani (2011), the likely benefits of electronic learning method out-weight the benefits of conventional learning approach if electronic learning is utilized and applied properly. In evaluating the e-learning effectiveness and experience, three distinct model of e-learning in education was discovered; the adjunct, blended and online. Algahtani described adjunct e-learning to be a situation where e-learning is employed as an assistant to the traditional classroom providing relative independence to learners in their learning and information search.

Moreover, Zhang (2016) and Judahil (2017) noted the positive impacts of electronic learning from the perspectives of the learners. Electronic learning, through an interactive video facility allows learners to watch all instructional contents that are presented in the classroom and also listen to the tutors as many times as needed (Zhang, 2016). This according to Brown (2018) and Judahil (2017) offers teachers with several ways of interacting with learners and to give them instantaneous feedback. However, according to Judahil (2017), it is essential for those who embrace the advanced technology during the process of teaching and learning has a variety of skills in Information and Communication Technology (ICT).

Singh (2011); Hemsley, (2012); and Sadler-Smith (2020) also noted that e-learning is beneficial to students in terms of improved communication between and among. Libraries have been concerned with encouraging and ensuring provision of learning opportunities to both the schooled and unschooled throughout their life time. According to Asogwa (2014), the driving forces for the changes in e-learning education are technological advancement, globalization, internationalization and standardization which placed added demand and on tertiary education libraries.

Drawbacks of e-learning Adoption in Tertiary Education

In spite of the advantages of e-learning adoption in tertiary education, it is not without some major drawbacks. Llewellyn (2019) libraries have fundamentally changed over the last few years, which is influenced majorly by two broad social changes that have transform higher education: neo-liberalism and the digital revolution. According to Klein and Ware (2013); Akkoyuklu and Soylu, (2016) and Lewis (2020), the disadvantages of e-learning generally are as follows:

Makes learners undergo contemplation, remoteness, as well as lack of interaction. It therefore requires a very strong inspiration as well as skills with regards to management of time in order to reduce such effects.

With respect to clarifications, explanations as well as interpretations, the e-learning method might be less effective that the traditional method of learning. The learning process is much easier with the use of the face to face encounter with the instructors or teachers.

When it comes to improvement in communication skills of the learner, e-learning as a method might have a negative effect. The learner though might have an excellent knowledge in academics but may not possess the needed skills to deliver.

Abbad (2019) asserted that since tests for assessments in e-learning are possibly done with the use of proxy, it will be difficult, if not impossible to control or regulate bad activities like cheating. These are some of the factors that affecting adoption of e-learning.

E-learning may also probably be misled to piracy and plagiarism, predisposed by inadequate selection skills, as well as the ease of copy and paste.

E-learning may also deteriorate institutions' role socialization role and also the role of instructors as the directors of the process of education.

Also not all fields or discipline can employ the e-learning technique in education. For instance the purely scientific fields that include practical cannot be properly studies through e-learning. Researchers have argued that e-learning is more appropriate in social science and humanities than the fields such as medical science and pharmacy, where there is the need to develop practical skills.

E-learning may also lead to congestion or heavy use of some websites. This may bring about unanticipated costs both in time and money disadvantages. Andersson (2018) opined that the above challenges have more effects on developing countries considering the cost implications and required expertise needed to make adoption of e-learning effective.

Conclusion

E-learning promotes immediate feedback, makes teaching and learning more interesting, allows learners move at their own pace, provides multiple sources of knowledge, and enhances diverse learning styles and search for information need and seeking behaviours. It motivates students' interaction with each other so as to exchange knowledge and point of views. It eases communication and enhances the relationships that sustain learning. Despite some challenges

discussed, literatures have sought to explain the role of e-learning in particular and how e-Learning has made strong impact in education. Its adoption in tertiary education especially in developed countries evidently revealed increased staff and students' access to library and information resources. It provides a rich environment for collaboration among students which improves academic standards. The overall literature which explains the merits and demerits of electronic learning suggests the need for its implementation in higher education for staff, educational administrators and students to enjoy the full benefits that come with its adoption and implementation.

Suggestions

This study provides the following suggestions:

i. Libraries and information science educators should be kept abreast of these development in order to remain relevant in their profession.

ii. Adequate experience in ICT increases teachers' confidence in integrating technologies in their professional tasks. Teachers' preparatory institutions have to design quality models/approaches to prepare teachers for uptake of technology in their teaching. The institutions must recognize that in any introduction of new approach and technologies, the most difficult obstacle to overcome for both students and teachers is a paradigm shift. The existing paradigm may serve as a filter, preventing the institution from experimenting with approaches that are contrary to prevailing wisdom.

iii. There is need to gradually create a scaffolding structure where the changes are incrementally felt and the new normal of doing things are addressed. The model may be structured to follow:

- ICT technical skills development,
- ICT pedagogy skills development ICT subject specific skill development,
- Practice driven in ICT implementation.

iv. Capacity training in ICT should be certified and culminate into improving teacher's welfare.

v. ICT facilities should be distributed to teachers at a subsidized rate.

vi. Government and respective regulatory bodies should enact policies that will entice educators and tertiary institutions and their libraries to integrate technology. Also they need to support professional development programs for library and information science educators.

REFERENCES

Abbad, M (2019). Looking under the Bonnet: Factors Affecting Student Adoption of E-Learning Systems in Jordan. *The International Review of Research in Open and Distance Learning.*

Aboh, S. O. & Akilu, R. in: Rebeeca Ape and Asom Faga (editors) (2019). *Ground work on library and information science. IKEKC CONCEPT PUBLISHERS,* Lafia, 80 – 104.

Aboh, S. O.,Faga, A., Abubakar, Z and Odu, A. O. (2016). Challenges and Strategies to enhance staff Development for Effective library services in special libraries in Benue State – Nigeria. *International Journal of Education, Learning and Development (e-journal), 4(4): 12 -20.*

Akaaka, D. T., Agena, I. A., Aboh, S.O. & Omame, I. M. in: Enang U. Uduak, Tella Adeyinka & Nwokocha Udo (editors) (2022). Perceived impact of information and communication technology on library services delivery in university libraries in Benue state, Nigeria. *Emerging Trends and Technologies in LIS Education During Covid-19 Era:* NALISE Publication 2022, 107-117.

Akkoyuklu, B. & Soylu, M. Y. (2016). A study on students‟ views on blended learning environment. *Turkish Online Journal of Distance Education*, 7(3), ISSN 1302-6488.

Algahtani, A.F. (2011). *Evaluating the Effectiveness of the E-learning Experience in Some Universities in Saudi Arabia from Male Students' Perceptions*, Durham theses, Durham University.

Almosa, A. & Almubarak, A. (2015). *E-learning Foundations and Applications,* Saudi Arabia:Riyadh.

Andersson, A., (2018). Seven Major Challenges for e-learning in Developing Countries: Case Study eBIT, Sri Lanka, *International Journal of Education and Development using ICT*, Vol 4, Issue 3.

Aslem, M. (2018). Current trends and issues affecting academic libraries and leadership skills. *LibraryManagement*. 39 (1-2), 78-92.https://doi.org/10.1108. Retrieved from online 2nd September, 2024.

Ezeani, C. N., Eke, H. N., & Ugwu, F. (2015). Professionalism in library and information science. The Electronic Library, 33 (1), 2-18. https://doi.org/10.1108. Retrieved from online 13th August, 2024.

Hameed, S. Badii, A. & Cullen, A. J. (2018). Effective e-learning integration with traditional learning in a blended learning environment. *European and Mediterranean conference on information system*, (25-26).

JuhadiI, N., Samah, A & Sarah, H. (2017). Use of Technology, Job Characteristics and work outcomes: A case of Unitary Instructors. *International Review of business Research papers*, 3(2)184-203.

Khan, B. H. (2015). *Managing E-learning: Design, Delivery, Implementation and Evaluation*, Hershey, PA: Information Science Publishing.

Lewis, N. J. (2020). The Five Attributes of Innovative E-Learning, *Training and Development*, Vol.54, No. 6, 47 51.

Llewellyn, A. (2019). Innovations in learning and teaching in academic libraries: A literature review. *New Review of Academic Librarianship*, 25 (2-4). 124- 149. https://doi.org/13614533. Retrieved from online 15th July,2024.

Marc, J. R. (2012). Book review: e-learning strategies for delivering knowledge in the digital age. *Internet and Higher Education*, 5, 185-188.

Salawudeen, O. S. (2012). E-learning technology: Creating an effective e-learning environment for Nigerian Polytechnic Educational Sysytem, Conference Paper October 2012DOI:10.1109/ICASTech.2012.6381018. Retrieved from online 20 July, 2024.

Singh H. (2011) Building effective blended learning programs. *Educational Technology* 43(6): 51-4.

Smedley, J.K. (2010). Modelling the impact of knowledge management using technology. *ORInsight* (2010) 23**,**233–250.

WentlingT.L, Waight C, Gallagher J, La Fleur J, Wang C, Kanfer A. (2020). Elearning - a review of literature. *Knowledge and Learning Systems Group NCSA* 9.1–73.

Zeitoun, H. (2018). *E-learning: Concept, Issues, Application, Evaluation*, Saudi Arabia, Riyadh: Dar Alsolateah publication.