Empowering LIS Educators with ICT Skills for Effective Knowledge Sharing in Federal Universities of North-Eastern States of Nigeria

[1]Sabo Maryam Suleiman, [2]Ekeh Ugochukwu Cyriacus
[1,2]University Library, Nigerian Army University, Biu, Borno State, Nigeria.
maryamsabosuleiman47@gmail.com, ugoekeh16@gmail.com

Abstract

This research investigated ways of Empowering LIS Educators with ICT Skills for Effective Knowledge Sharing in Federal Universities in the North-Eastern States of Nigeria. Two research objectives were raised, and data gathered were analyzed using Statistical Package for Social Sciences (SPSS). The research objectives were; to discover the Ability of Library and Information Science Faculty members in the North-Eastern States of Nigeria to communicate using Digital Technology. To find out how Library and Information Science Faculty members in the North-Eastern States of Nigeria Integrate digital content in their teaching. Quantitative research method was applied in the study using a random sampling technique to draw the sample. Forty-four copies of the questionnaires were administered, while thirty-seven copies were completed, returned, and used in the study, representing 84% of the response rate. The finding of the study revealed that Faculty Members in the Department of Library and Information Science in the Federal University of North-eastern states of Nigeria could create content online for different audiences using the appropriate style or tone. The study recommended some steps to turn around the situations that Faculty members in the Department of Library and Information science in the North-Eastern State of Nigeria should be provided with more training, like workshops, conferences, and seminars on how to create content online for a different audience. The Department of Library and Information science in the North-Eastern States of Nigeria should provide digital technologies such as teleconferencing for the faculty members to integrate into their teaching process.

Keywords: Digital Technology, Empowering,ICT Skills,

Introduction

Teaching is the process of improving knowledge, planning, implementation, revision, and evaluates new knowledge relevant for their core professional practice and regularly update their knowledge base to improve their practice and to meet new teaching demands (Blomeke & Delaney, 2012). Teaching is usually obtained in an academic environment such as primary, secondary, and tertiary institutions like Universities. For effective academic activities in Universities, teaching activity is observed in various departments made up of faculties; one of these departments is the Department of Library and Information Science. In the University where the Department of Library and Information Science Lecturers teach students a different course to impact the knowledge of organizing, acquiring, processing, disseminating, and use via them

some of the courses require are an organization of Information, Introduction to Information Technology, Information Sources and Services, Information System in Library and Information Centers, etc. (Voss, Kunter&Baumert, 2011).

Library and Information Science Education in Nigeria today cannot be relevant without the effective preparation of a new generation of librarians to effectively use the new information and communication technology in their professional practices. The education and training of LIS professionals have to be such that it empowers them to unleash their potential as they endeavor to offer relevant and efficient services within the current levels of technological sophistication (Minishi, 2007). Library and information science (LIS) academic departments have witnessed not only this increasing globalization of higher education but also that of the LIS workplace, including the consequent extension of competition beyond traditional, institutional, national, and regional boundaries (Minishi, 2007).

For effective teaching to be achieved, recent development in Information and Communications Technology (ICT) has transformed how individuals access and use the information for teaching and learning. ICT has acquired an important role in the learning process, both in the educational system and at home (Meyers, Erickson & Small 2013). The Internet, in particular, has made available a virtually endless number of sources of information. As a result, of teaching and learning process extensively requires the ability to access, locate, extract, evaluate, organize and present digital information (Erstad, 2010).

Digital technologies with their interactive and increasingly individualized digital services change people's habits and behavior, building new value models and vital clues. They are becoming an irreplaceable source of education and the development of new literacy. Digital technology enables an immense amount of information to be compressed on small storage devices that can be easily preserved and transported. Digitizations also quicken data transmission speeds. Digital technology has transformed how people communicate, learn, and work in the digital world. (Erstad, 2010).

Problem Statement

In the digital era, faculty members are expected to be digital literates, which implies that they have the ability to use digital technology and know when and how to use it for their teaching and research work. Faculty members interpret and implement the curriculum in academic programs. Over the past few years, library schools have reviewed the Library and Information Science Curriculum to reflect the developments and adoption of Information Technology in Library and Information Services. Studies, however, have revealed that Library and Information Science curriculum for many library schools has components of digital information systems and Information and Communication. Muhammad (2000) stated that for Nigeria to meet in the Digital Age Library and Information Science schools whose principles are to produce the right caliber of professionals must be revisited. Masters (2012) also indicated that; for the Nigerian Library Schools to face the challenge of the 21st century, the information studies programs in the various Nigerian Library Schools should emphasize information technology both in theory and practice.

Despite the Information and Communication Technology in teaching and research, a preliminary study conducted by the researchers observed that majority of faculty members in the Department of Library and Information Science in Federal Universities of North-Eastern States of Nigeria were not using digital technologies in their teachings; and student without the skills to use digital tools risk an inferior process at best, and they are behind in pursuit of a job. Sandholtz& Reilly (2010) observed that lecturers' technology skills are strong determinants of digital integration, but they are not being used in the classroom; and that leads to the inability of students to get a job after graduation, as 90% of jobs requiring some level of information technology competency. Could it be a result of a lack of digital literacy skills? Hence the need for this study to investigate the level of digital literacy skills of faculty members for teaching in Library Schools in Federal Universities of North-eastern states, Nigeria.

Objectives of the Study

This research answered the following Research Objectives:

1. To Discover the Ability of Library and Information Science faculty members in the North-Eastern States of Nigeria to communicate using Digital Technology in teaching and learning.
2. To find out how Library and Information Science faculty members in the North-Eastern States of Nigeria integrate Digital Content in their teaching and learning.

Literature Review

Literatures were reviewed under the following subheading: communication using digital technology by the faculty staff members and ability to integrate digital content in teaching, learning, and research.

Communication Using Digital Technology by the Faculty Members

Digital communication uses digital devices and mobile technology to share knowledge, manage information, and contribute user-generated content to communities or teams of people. Dramatically different from traditional communication, it encourages a continued connection to a broader network of participants at all times sharing (Common Wealth of Australia, 2011).

Digital communication includes using digital shared notebooks and coauthoring to capture and exchange information, the creation of digital maps and illustrations to visually express data for better understanding or remembrance, and the sharing of information via web-based links that allow it to be retrieved from any device. The result is greater worker mobility and flexibility, enabling a potential increase in productivity along with the keener awareness of projects that comes from more proactive sharing (Common Wealth of Australia, 2011).

Ability to Integrate Digital Technology in Teaching, Learning, and Research

Digital technology can be designed and developed with flexibility and customization capabilities at the onset, reflecting the principles of universal design and can be revised in a timelier manner than the labor-intensive and costly process of updating traditional, static

materials like printed textbooks(Juuti, Loukomies, &Lavonen, 2013). Furthermore, when developed as Open Educational Resources (OER), high-quality digital learning materials can be broadly disseminated and modified by other educators to meet their students' needs and interests. In other words, digital technology can be designed, created, and refined over time in a way that recognizes and responds to the full spectrum of learner variability and where this content is licensed as OER, these tools can be shared across classrooms and modified, as appropriate, to meet individual student needs with the use of digital resources (Juuti, et al., 2013).

Digital resources and well-designed curricula will only achieve optimal results in the21st century classroom if educators have a foundation of basic computing skills. Colleges and universities level Teacher Education Programmes should require educational technology courses for graduation(Blikstein, 2013).

Methodology

A Quantitative research methodology was employed for the study. The population of the study comprised 44 faculty members in the three (3) Departments of Library and Information Science in the Federal University of North-Eastern States of Nigeria, specifically, Abubakar Tafawa Balewa University Bauchi, the Modibbo Adama University of Technology Yola, and University of Maiduguri, Borno State. The table below shows the population of the study for both institutions that are offering Library and Information Science in North-eastern states Nigeria.

Table 1: Population of the Study

S/N	Names	No. of Faculty Members
1.	Abubakar Tafawa Balewa University, Bauchi	12
2.	ModibboAdama University of Technology Yola.	17
3.	University of Maiduguri, Borno State.	15
Total		**44**

The researcher used the whole population because it was manageable. Hence, no sampling technique was required. Questionnaire was used as the instrument for data collection.

Table 2: Communicate Using Digital Technology

	ATBU			MARTECH			UNIMED			TOTAL				
STATEMENT	1	2	3	1	2	3	1	2	3	1	2	3	Mean	SD

I can communicate safely with others online to create a shared document or presentation	4(40%)	3(30%)	3(30%)	3(21%)	6(42%)	5(37%)	2(16%)	5(38%)	6(46%)	9(24%)	14(38%)	14(38%)	2.3	1.5
I can use media-capture devices to record and edit a podcast or video	2(20%)	4(40%)	4(40%)	2(14%)	7(50%)	5(37%)	2(16%)	6(47%)	5(38%)	6(16%)	17(46%)	14(38%)	3.4	1.8
I can interact with others online (forums, blogs, social networking sites, audio, video, etc.)	3(30%)	4(40%)	3(30%)	3(21%)	6(42%)	5(37%)	4(30%)	6(47%)	3(23%)	10(27%)	16(44%)	11(29%)	2.2	1.3
I can create content online for different audiences	2(20%)	4(40%)	4(40%)	1(7%)	6(42%)	7(50%)	2(16%)	4(30%)	7(55%)	5(14%)	14(38%)	18(48%)	3.7	2.2

using the appropriate style or tone, e.g., a web page or blog entry for private use, a presentation for use by my fellow students, an assessment for my course, or a webpage to be read by the general public														
I can use social bookmarking to organize and share information	3(30 %)	3(30 %)	4(40 %)	3(21 %)	5(37 %)	6(42 %)	3(23 %)	4(30 %)	6(47 %)	9(24 %)	12(32 %)	16(44%)	2.2	1.3
I can share files legally with others	3(30 %)	5(50 %)	2(20 %)	2(14 %)	6(43 %)	6(43 %)	1(8 %)	3(23 %)	9(69 %)	6(16 %)	14(38 %)	17(46%)	3.5	1.9

Key: 1 = Very Confident 2 = Quite Confident 3 = Not Confident SD = Standard Deviation

Table 2 Revealed that I can create content online for different audiences using the appropriate style or tone, and I can share files legally with others who have average mean scores of over 3.00 for all the faculty members in the North-Eastern states Nigeria. These can be said to have a highly significant influence on the respondents on communicating using digital content because they all recorded above 3.00 mean scores. Whereas I can communicate safely with others online to create a shared document or presentation, I can interact with others online, and I can use social bookmarking to organize and share information have average mean scores of over 2.00 for all the faculty members in the three institutions studied. This suggests that such factors have a less significant influence on the respondents locating digital information because they were re1corded over 2.00 mean scores.

The implication of this finding was that lecturers can interact with their students online. Hakkarainen, Paavola, Kangas, &Seitamaa-Hakkarainen, (2013)revealed that students supported by proper instruction and collaborative technologies were able to pursue challenging inquiries in their studies. Furthermore, investigations of supportive technology-enhanced learning provided clear evidence that the technology-enhanced process of Investigative Learning or Inquiry-Based Science teaching or Learning by Collaborative Designing feeds up students' learning engagement at various levels of education because of digital technology.

Table 3: Integrate Digital Technology in Teaching and Learning

	ATBU			MAUTECH			UNIMAID			TOTAL				
STATEMENT	1	2	3	1	2	3	1	2	3	1	2	3	**Mean**	**SD**
I can use technology like computer, ipads in teaching student.	2(20%)	5(50%)	3(30%)	1(7%)	4(29%)	9(64%)	2(15%)	5(38%)	6(47%)	5(14%)	14(38%)	18(48%)	3.9	2.5
I can integrate digital storytelling power point in classroom.	1(10%)	5(50%)	4(40%)	2(14%)	7(50%)	5(37%)	1(8%)	5(38%)	7(47%)	4(10%)	17(46%)	16(44%)	3.8	2.3
I can use electronic storybook to increase reading motivation.	1(10%)	6(60%)	3(30%)	2(14%)	7(50%)	5(37%)	2(15%)	7(55%)	4(30%)	5(14%)	20(58%)	12(32%)	3.8	2.3
I can use social media like skype with my students in answering their questions.	3(30%)	6(60%)	1(10%)	3(21%)	7(50%)	4(29%)	2(15%)	6(47%)	5(38%)	7(19%)	19(52%)	11(29%)	3.6	2.0

Key: 1 = Very Confident 2 = Quite Confident 3 = Not Confident SD = Standard Deviation

Table 3 indicated that respondents can use technology like computers, ipads in teaching students can integrate digital storytelling PowerPoint in the classroom, can use electronic storybooks to increase reading motivation, and can use social media like skype with students in answering their questions. This indicated that faculty members in the north-eastern states of Nigeria could integrate digital content in their classrooms.

The implication of this study indicated that lecturers could integrate digital technology in their teaching as Higgins (2009) confirms that the level of skill, confidence, and knowledge learners have when using digital technologies will impact the quality of their use of the technology. At the same time, most learners expressed very positive attitudes towards technologies for learning and were confident users.

Conclusion

Based on the findings of the study, the researcher concluded that faculty members in the Department of Library and Information Science North-eastern States of Nigeria have an average level of skills in locating and creating digital information generally. However, digital literacy skills are essential for information professionals. Faculty members have a lot to offer their students through ICT in the current dispensation. Therefore, it is very important to have adequate skills in the use of these technologies.

Recommendations

Based on the findings of the research study, the following recommendations were suggested by the researcher:

1. Faculty members in the Department of Library and Information science in the North-Eastern State of Nigeria should be provided with more training like workshops, conferences, and seminars on creating content online for a different audience.
2. The Department of Library and Information science in the North-Eastern States of Nigeria should provide digital technologies such as teleconferencing facilities for the faculty members to integrate into their teaching process.

References

Blikstein, P. (2013). Digital fabrication and ”Making” in Education: The democratization of innovation. In J. Walter-Herrmann & C. Buching (Eds.).,FabLabs: of machines, makers, and inventors. Bielefeld: Transcript.

Blomeke, S. & Delaney, S. (2012). Assessment of teacher knowledge Across Countries, A review of the State of research ZMD Mathematics Education, 44, 133-180. Commonwealth of Australia (2011).National digital economy strategy [NDS]: Leveraging the

NBN to drive Australia's Productivity, Department of Broadband, Communications and the Digital Economy: Canberra, available at http://www.nbn.gov.au/ the- vision/digital economystrategy.

Erstad, O. (2010). Educating the digital generation.*Nordic Journal of Digital Literacy*, 1, 56-70.

Hakkarainen, K., Paavola, S., Kangas, K., &Seitamaa-Hakkarainen, P. (2013). Sociocultural perspectives on collaborative learning: Towards collaborative knowledge creation. In C.E.Hmelo-Silver, A. M. O'Donnell, C. Chan, & C. A. Chinn (Eds), The International handbook of collaborative learning (pp. 57-73). London, UK: Routledge.

Higgins, S. (2009). Interpreting the evidence base for the impact of digital technologies and learning. Coventry: Becta. Juuti, K., Loukomies, A., &Lavonen, J. M. J. (2013). Pupils' views on motivating features of inquiry-based teaching, in HonerødHoveid , M., & Gray, P. (Eds.), Inquiry in Science Education and Science Teacher Education, Trondheim, Akademikaforlag.

Masters,E.(2012). The effects of online teacher professional development on fourth grade students knowledge and practices in English Language Arts.' *Journal of Technology and Teacher Education, Jan.*

Meyers, E., Erickson, I., Small, R. (2013). Digital literacy and informal learning 15 environments: an Introduction. Learning, Media and Technology 38(4),355-367.

MinishiMajanja, M.K (2007). Integration of ICTs in library and information Science Education in Sub-Saharan Africa. World Library and Information Congress: 73rd IFLA General Conference and Council. 19 ¨23 August, 2007: Durban, South Africa. Available: http://www.ifla.org/IV/ifla73/index.htm

Muhammad. Z. (2000). Information technical education in Nigerian library and information science Schools and the challenges of the digital age. In: Information technology in library and information science education in Nigeria: 42-49.

Sandholtz, J. H., & Reilly, B. (2010). Teachers, not Technicians: Rethinking Technical Expectations for Teachers. Teachers College Record, 106(3), 487–512.

Voss,T., Kunter, M. & Baumert, J. (2011). Assessment of teacher candidates general pedagogical/psychological knowledge: Test construction and validation. *Journal of Education Psychology*, 103 (4), 922-969.