

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

3-29-2022

MAPPING LIBRARY AND INFORMATION SCIENCE PROFESSIONALS COMPETENCIES USING TECHNOLOGICAL PARADIGM SHIFT: SURVEY OF THREE UNIVERSITY LIBRARIES

Oladotun Ayowumi Osunkentan

Federal college of Education Oyo, Oyo State, osunkentanoladotun11@gmail.com

Adepero Olajumoke Odumade

Federal Polytechnic, Ilaro, odumadeadepero@gmail.com

Abiodun Kushoro

Osun state University, Osogbo, Nigeria, kushoroabiodun@gmail.com

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Scholarly Communication Commons](#)

Osunkentan, Oladotun Ayowumi; Odumade, Adepero Olajumoke; and Kushoro, Abiodun, "MAPPING LIBRARY AND INFORMATION SCIENCE PROFESSIONALS COMPETENCIES USING TECHNOLOGICAL PARADIGM SHIFT: SURVEY OF THREE UNIVERSITY LIBRARIES" (2022). *Library Philosophy and Practice (e-journal)*. 7007.

<https://digitalcommons.unl.edu/libphilprac/7007>

**MAPPING LIBRARY AND INFORMATION SCIENCE
PROFESSIONALS COMPETENCIES USING
TECHNOLOGICAL PARADIGM SHIFT: SURVEY OF
FIVE UNIVERSITY LIBRARIES**

BY

ODUMADE ADEPERO OLAJUMOKE PG/17/0523

OSUNKENTAN OLADOTUN A. PG/17/ 0117

KUSHORO ABIODUN A. PG/17/ 0578

Abstract

This study focused on competencies of library and information professionals, using technological paradigm shift as yardstick. The study used a survey method and questionnaire to collect data from the respondents in 3 universities in south west, namely Augustine University Library (AUL), Epe, Lagos State; Sola Akinrinade Library (SAL), Osun State University, Osun State, Albert Ilemobade Library (AIL), Federal University of Technology, Akure, Ondo State, Nimbe Adedipe(FUNAAB) Federal University of Agriculture Abeokuta, Ogun State and Olabisi Onabanjo University(OOU), Ogun State. 84 respondents were randomly selected for the study, from which 73 respondents completed and returned their questionnaires, representing 86.90%. The findings revealed that the possession of IT skills is a major requirement for effective job performance and effective library service delivery, and also they are good in using various technologies for their job performance. Also, the major challenge they face is inability to acquire relevant technologies and skills due to social economic factors. The study recommends that library management should provide more ICT trainings for their staff, and also provide adequate ICT facilities to enhance productivity of staff.

Keywords: Library professional, Information professional, Paradigm shift, competency

Introduction

Librarianship is a profession that has a history of depending on technology to operate. The history of human civilization attests to this. From the era of papyrus to the machine readable, librarianship dwell so much on moving in tune with current technology for information management. As events unfold and technologies change, so also librarians are expected to change. These new changes come with new roles and challenges, therefore librarians need to possess skills and competencies that will enable them fit perfectly into these new roles and equally tackle the new challenges posed by this technological paradigm shifts.

Library and Information Science professionals are expected to be competent in certain areas, especially those that have direct implications for their job. Because librarianship cannot function effectively without application of ICT, it is therefore incumbent on the professionals to possess certain technological skills that are required to function effectively in the new and dynamic information environment. Therefore, this paper focuses on the technological paradigm shift as it affects professional competencies of LIS practitioners in five selected university libraries in Ogun state, Lagos state, Osun state, and Ondo state.

Statement of the Problem

It is expected that all library professionals possess necessary competencies and skills needed to function effectively in the 21st Century library environment. However, it has been observed that some of them lack these basic technological skills and competencies. This may be associated with the kind of manual training they received many years ago at their library schools, compared to new and ICT integrated curriculum being run by many contemporary library schools. This negatively affects the discharge of their duties as making it to look more passive. This equally affects user's perceptions about them and the profession in general. If this problem of technological imbalance persists, it poses a threat to the future of the profession, just as many users may also stop using the library due to the inability of the library staff to meet their technological needs and ideals.

It is against this backdrop that this study sets out to assess the competencies of librarians in five selected university libraries, using technological paradigm shift as a yardstick. The five selected university libraries are: Augustine University Library(AU), Sola Akinrinade Library(SAL), Osun

State University, Albert Ilembade Library(AIL), Nimbe Adedipe library(FUNAAB) and Olabisi Onabanjo university Library(OOU)

Research Questions

This study aims at providing answers to the following research questions:

1. What technological competencies are required by LIS professionals in the selected five university libraries?
2. What level of technological competencies do the LIS professionals in the selected five university libraries currently possess?
3. What are the perceptions of LIS professionals on using new technology for job performance/ library services delivery?
4. What are the challenges to the acquisition of these competencies among the LIS professionals in the selected five universities?

Literature Review

Library tasks are multi-dimensional and technical, thus require some level of expertise to handle them. Therefore, there is the need for a professional to be in charge of such activity. A library and information professional can be referred to as a staff that is in charge of library management or perform some basic functions which requires high level of skills or knowledge. Library and information professionals are known with different nomenclature, depending on the library or organization. They can be identified as librarians, information scientists, information professionals or information specialists depending on the nature of organization where they function. A library and information professional deals with the collecting,, recording, organizing, storing, preserving and retrieving of information resources in various formats.

The efficiency of a library and information professional depends, among other factors, on the use of technology to enhance his productivity and service delivery, as well as possession of required skills and certain level of technological competencies. The technical know-how of librarians can affect their competencies and abilities to perform optimally. Also, there is a conflict between old and manual way of doing things and the modern approach, highly influenced by the use of ICT's. This paradigm shift is creating ripples among professionals, librarians inclusive.

Technology has greatly enhanced library and information service delivery. That technology has undergone various level of development is an understatement. Today, libraries aims to provide information communication technology (ICT), as a complementary role to their traditional roles of information custodianship. With ICT, provision of effective services delivery is taking on new meanings and constructs.

Paradigm shift is a challenge of the status quo. This is a kind of fundamental change from the usual or old ways of doing things, to a more conventional and modern approach. Scannx (2019) points out three major paradigm shifts that every academic library must make to survive. These are: (a) shifting from paper to printed page or multi-media contents, (b) shift from information ownership to information guidance and (c) a shift from privileged institution to active competitors.

A close look at the issue of paradigm shift in the library reveals that it focuses on the adoption of new technology to enhance library productivity and efficiency. It is shift in technology. Also, judging from various competitors that libraries now have to struggle with to provide information services, it is therefore imperative to embrace this technology shift to achieve maximally and continue to cope in the dynamic 21st century information arena.

It is obvious that the library and information science professionals need to possess certain skills, which are essential to the discharge of their duties in this 21st century. Such skills are mostly ICT related to meet up with their new and challenging roles. Wiorogorska (2014) and Abubakar and Attahir (2018) listed some of these skills as: Information technology skills, Customer relation/ service skills, Language proficiency skills, soft skills and management training skills.

Methodology

The study adopted a survey method. Questionnaire was used to collect data from the respondent. The population of the study consisted of all the professionals in five universities in South-west Nigeria, namely: Augustine University Library (AUL), Epe, Lagos State; Sola Akinrinade Library (SAL), Osun State University, Osun State and Albert Ilemobade Library (AIL), Federal University of Technology, Akure, Ondo State. The five universities were picked based on their geographical spread. The population consisted of 4 professional librarians in AUL. However, the total number of personnel in SAL and AIL were not released. Total of 24 sets of questionnaire

were randomly distributed to librarians in the 3 libraries. 10 each at SAL and AIL, and 4 at AUL. The response rate is presented in Table 1.

Findings

Response rate

SN	Library	No of questionnaire administered	No of questionnaire returned (%)
1	Augustine University Library (AUL)	4	4 (4.76%)
2	Sola Akinrinade Library (SAL), Osun State University	20	16 (19.05%)
3	Albert Ilemobade Library (AIL)	20	18 (21.43%)
4	Nimbe Adedipe Library	20	18 (21.43%)
5	OOU	20	17 (20.23%)
	TOTAL	84	73 (86.90%)

Table 1 shows the distribution of respondents according to response rate from each library. From the 84 sets of questionnaire that were administered 73 were returned and valid for analysis. This represents 86.90% response rate which is considered appropriate enough.

Table 2: Distribution of respondents according to demographic variables'

Variables	AUL	SAL	AIL	FUNAAB	OOU	Total
Gender						
Male	1(1.37%)	10 (13.70%)	10(13.70%)	10(13.70%)	9(12.33%)	40 (54.79%)
Female	3(4.11%)	6 (8.22%)	8 (10.96%)	8(10.96%)	8(10.96%)	33 (45.21%)
Age						
31-35 years	3 (4.11%)	8(10.96%)	5 (9.85%)	4(5.56%)	6 (8.22%)	26 (35.62%)
36-40 years	0	2 (2.74%)	5 (9.85%)	4(5.56%)	6(8.22%)	17 (23.39%)
41-45 years	1(1.37%)	4 (5.486%)	4(5.56%)	4(5.56%)	3 (4.11%)	16 (21.92%)
46- > years	0	2(2.74%)	4(5.56%)	6(8.22%)	2 (2.74%)	14(19.19%)

Highest Educational Qualifications						
BLIS	2 (2.74%)	10(13.70%)	8 (10.96%)	9(12.33%)	9(12.33%)	38 (52.05%)
MLIS	2 (2.74%)	5 (9.85%)	7 (9.59%)	3(4.11%)	5(8.22%)	22 (30.14%)
PhD	0	1(1.37%)	3 (4.11%)	6 (8.22%)	3 (4.11%)	13(17.81%)
Years of working experience						
<5 years	3 (4.11%)	4 (5.48%)	8 (10.96%)	6(8.22%)	4 (5.48%)	25 (34.24%)
6-10 years	1(1.37%)	8 (10.96%)	7 (9.59%)	3(4.11%)	9(12.33%)	28 (38.36%)
11 -> years	0	4 (5.48%)	3 (4.11%)	9(12.33%)	4 (5.48%)	20(27.40%)

Table 2 shows the distribution of the respondents according to their demographic variables. From the Table, it is evident that 54.79% are male, while the remaining 45.21% are female. Also, their academic qualifications vary considerably. While 52.05% have BLIS, 30.14% have MLIS and the remaining 17.81% have PhD. Also, they have various years of working experience. While some 34.24% have less than 5 years experience, 38.36% have between 6 – 10 years of working experience and the remaining 27.40% have 11years and above.

Research Question 1: What technological competencies are required by LIS professionals in the selected five university libraries?

Table 3: Technological competencies required by LIS professionals in the university libraries

SN	For effective job performance and service delivery in the 21st Century, libraries must possess the following competencies:	AUL	SAL	AIL	FUNAAB	OOU	Total
1	Basic ICT skills	4 (5.48%)	16 (21.92%)	18(24.66)	18(24.66%)	17(23.29%)	73 (100%)
2	Web 2.0	4 (5.48%)	16 (21.92%)	18(24.66)	18(24.66%)	17(23.29%)	73 (100%)
3	Marketing strategies	4 (5.48%)	16 (21.92%)	16(21.92)	17(23.29%)	17(23.29%)	70(94.44%)
4	RDA	4 (5.48%)	16 (21.92%)	18(24.66)	18(24.66%)	17(23.29)	73(100%)
5	Digital imaging	4 (5.48%)	16 (21.92%)	18(24.66)	18(24.66%)	17(23.29)	73 (100%)
6	Conversion of files from one format to another	4 (5.48%)	16 (21.92%)	18(24.66)	18(24.66%)	17(23.29%)	73 (100%)
7	Using OCLC	4 (5.48%)	16 (21.92%)	18(24.66)	18(24.66%)	17(23.29%)	73 (100%)
8	Database management	4 (5.48%)	16 (21.92%)	18(24.66)	18(24.66%)	17(23.29%)	73 (100%)
9	Online search	4 (5.48%)	16 (21.92%)	18(24.66)	18(24.66)	17(23.29%)	73 (100%)

From Table 3, it is evident that all the respondents across the five libraries agreed that librarians should possess certain technical competencies as requirements for effective job performance within the library. However, some 5.56% of the respondents disagreed that marketing strategies are necessary as part of the competencies.

Research Question 2: What level of technological competencies do the LIS professionals in the selected five university libraries currently possess?

Table 4: Level of digital fluency of the library staff

SN	Rate your level of fluency on the following competencies	AUL	SAL	AIL	NAL	OOU
		\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}
1	Ability to operate computer systems	4.5	2.63	2.56	2.56	2.41
2	Ability to convert word documents to pdf	4.5	2.63	2.00	2.67	2.53
3	Ability to convert paper based documents to digital format	4.5	2.63	1.72	2.5	2.65
4	Ability to classify books using OCLC	2.5	2.38	2.22	2.22	2.29
5	Ability to use social media to market library services	4.5	2.25	2.22	2.44	2.82
6	Ability to manage electronic databases	4.5	2.38	2.22	2.33	2.47
7	Ability to repackage information using available technologies	4.5	2.38	2.22	2.78	2.71
8	Ability to use available technologies for carrying out my duty	2.5	2.38	2.22	2.67	2.35
9	Ability to search for necessary information using the Internet	4.5	2.38	2.22	2.5	2.47
10	Ability to troubleshoot technology	2.5	2.38	2.22	2.44	2.71

Table 4 shows the mean score for the level of digital fluency among the respondents across the five libraries. A mean score of 4.5 from respondents from AUL shows that they were highly fluent in the use of new technologies that were presented to them which include: ability to operate computer systems, ability to convert word documents to pdf, and ability to convert paper based documents to digital format. However a mean score of 2.5 was obtained for ability to classify books using OCLC and ability to use available technologies for carrying out their duties shows that they were not fluent in such skills.

Also, a mean score of 2.63 from respondents from SAL and 2.56 from AIL and NAL and 2.41 from OOU also indicate that majority of the respondents from the libraries are not highly fluent in the use of computer systems. Also, a mean score of 2.38 from AUL, 2.22 from SAL and AIL, and 2.29 from OOU shows that the respondents are not highly fluent in classifying books using OCLC.

What are the perceptions of LIS professionals on using new technology for job performance/ library services delivery?

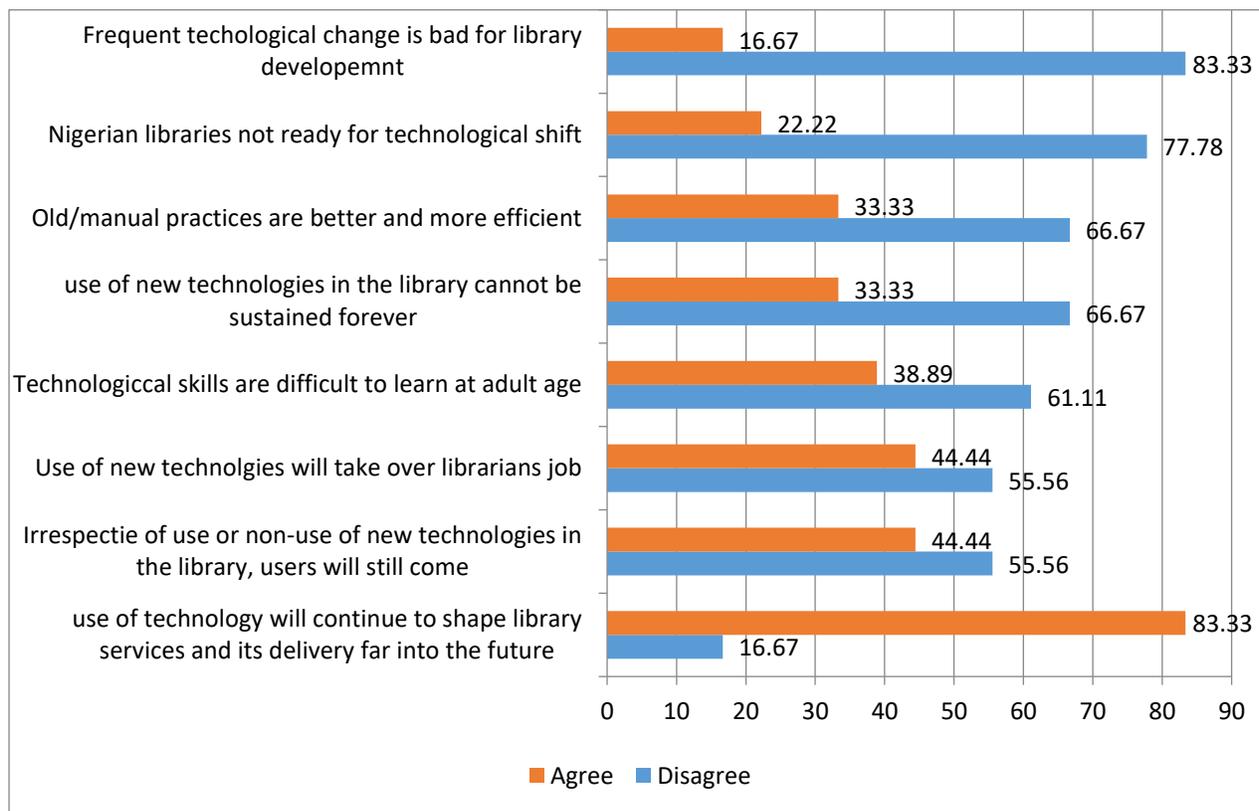


Figure1: Perceptions of LIS professionals on using new technology for job performance/ library services delivery. n = 18

Figure 1 shows the perceptions of the respondents on paradigm shift as it affect their job performance and delivery of library services. The Figure shows that minority of 16.67% agreed that frequent technological changes are bad for library development. Also, 22.22% agreed that many Nigerian libraries are not ready for this technological paradigm shift. However, some 44.44% are of the perception that the use of new technologies in the library will take over librarians’ job, while majority of 88.33% also agreed that the use of new technologies will continue to shape library services and its delivery far into the future.

Research Question 4: What are the challenges to the acquisition of these competencies among the LIS professionals in the selected five universities?

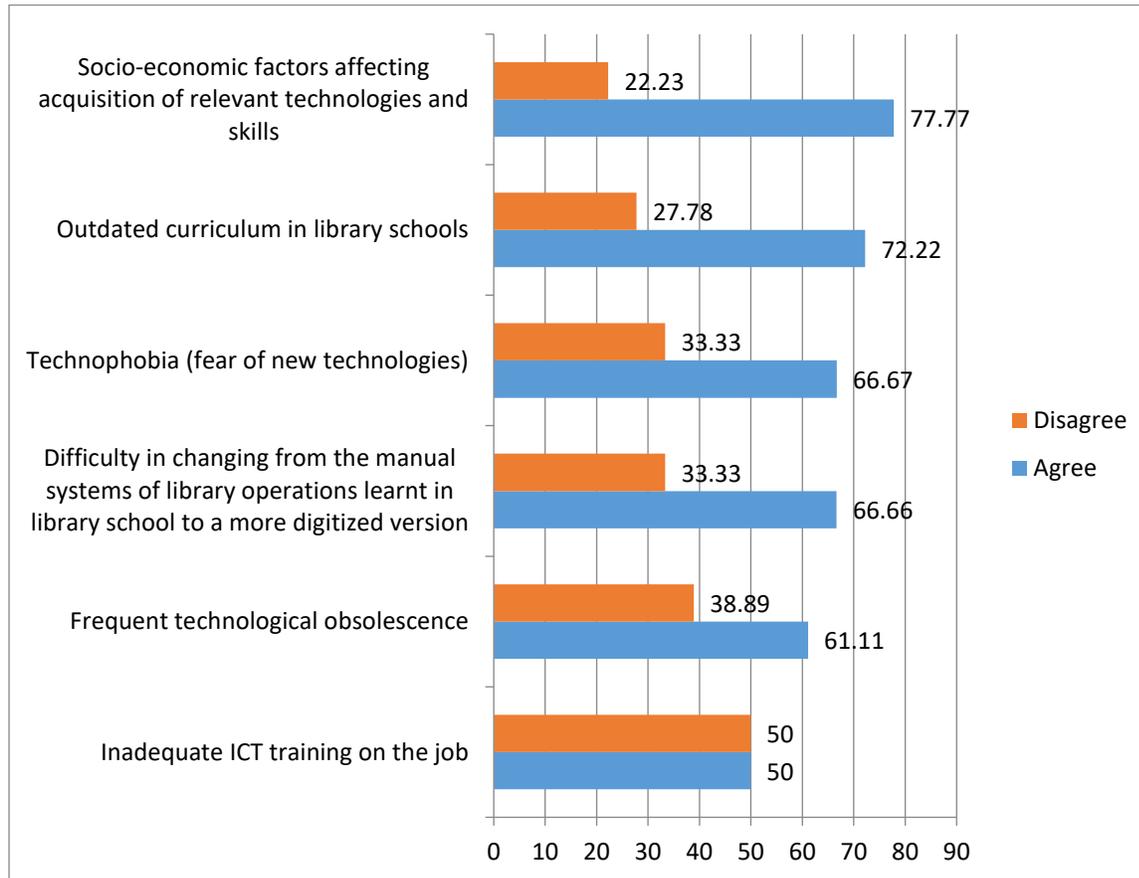


Figure 2: Challenges to the acquisition of technological competencies among the LIS professionals in the selected five universities

From Figure 2, it is evident that majority of 77.77% of the respondents faced challenge on acquisition of relevant technological skills due to social economic factors. Also, some 72.22% of the respondents agreed that outdated curriculum in Nigerian library schools constitute as problem depriving librarians from embracing the new paradigm shift. Some 66.67% has phobia for the use and embracement of the new technologies, while some 50% claimed that inadequate ICT training on the job constitute as a challenge.

Discussion of Findings

From the findings, it was discovered that majority of the respondents are of the opinion that librarians must possess certain ICT skills in this 21st Century to enhance their job performance and service delivery. Also, it was discovered that majority of the respondents from the five

libraries were highly fluent in using digital technology for performing their duties and service delivery. The perceptions of the librarians about the new paradigm shift as it affects their competencies were somehow uniform. Majority of them were of the perceptions that the use of technology will continue to shape library services and its delivery far into the future. This implies that technology will continue to shape the future of librarianship. This is in line with Rendon (2014) findings.

This study also affirmed that the librarians in the universities listed above appreciate the use of technology in workplace. There is a general positive result that new technologies will make their work easier, with increase speed of accomplishment and accuracy. This is in consonance with Ennis (2005). However, the librarians in AUL, SAL, AIL, FUNAAB and OOU believed that technology had added more responsibility to their jobs. There is enthusiasms among the librarians with technology as they looked forward in learning and using the new technologies.

Conclusion

Librarians in AUL, SAL, AIL, FUNAAB and OOU possess high level of digital fluency and has positively impacted their job performance and service delivery. They are also of the perception that technology will continue to shape the future of the profession far into the future. Also, the major challenge they face was in term of inability to acquire basic technological skills due to social economical factors.

Recommendations

Based on the findings of this study, the followings are hereby recommended:

1. Library management should provide more ICT trainings for their staff, especially those that directly affect their job performance and library service delivery. Such training will focus on re-skilling them for efficiency in tune with current realities in information world.
2. Also, library management should endeavour to provide adequate ICT facilities to enhance productivity of staff and effective service delivery. Having access to adequate ICT equipment will enable the employees interact with the machines and gain mastery and confidence on using them.

3. Similarly, the archaic LIS curriculum still in use by many library schools in Nigeria needs to be reviewed. LIS instructions need to be in line with global best practices and trends in the field. For instance, teaching of manual 3 ½ card catalogue has been phased out in advanced countries and have been replaced by a more robust ICT compliant systems.

References

- Abubakar, A. and Attahir, I. .S. (2018). Innovative and creative skills for the 21st century librarian: benefits and challenges in Nigerian academic libraries. *Information Impact: Journal of Information and Knowledge Management*, 9 (2).
- Rendon, F. (2014). How innovation and technology are shaping libraries today. Retrieved from www.m.huffpost.com/us/entry/us_5244601?guccounter=1
- Scannx (2019). 3 vital paradigm shifts every academic library must make to survive. Retrieved from www.scannx.com/the-book-scanning-blog/bid/368923/3-vital-paradigm-shifts-every-academic-library-must-make-to-survive
- Wikipedia (2019). Information professional. Retrieved from www.en.w.wikipedia.org/wiki/information_professional
- Wiorogorska, Z. (2014). The role of libraries in shaping 21st century skills in Poland. Retrieved from www.lik.springer.com
- Ennis, L. A. (2005). The evolution of techno stress. *Computers in Libraries*, 25 (8), 10-12.