ASSESSING INFORMATION AND TECHNOLOGY (IT) SKILLS OF ACADEMIC LIBRARIANS FOR EFFECTIVE SERVICE DELIVERY IN NORTHWEST NIGERIA

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Abstract

The paper assesses the state of, and requisite information technology skills that are necessary for academic librarians to be responsive, effective and efficient in the harnessing, acquisition and dispersal of information and services in digital environment. To undertake the study four research questions were raised to ascertain the qualifications of academic librarians, skills requirements, avenues for acquisition of skills and challenges to the acquisition of the requisite skills. Survey research method was adopted for the study to drawn sample randomly and purposefully for the administration of the instrument for data collection (structured questionnaire). A response rate of 83.9% was achieved and the data collected were analyzed descriptively using frequency distribution counts and percentages. The results reveals that academic librarians entry qualifications varied among universities, primarily BLIS and first degree in computer science, in addition higher degrees especially Masters of Library Science were also recorded. Skills acquired and utilized effectively by librarians comprise of website maintenance, system application and networking, whereas training were acquired from numerous avenues that comprise workshops, conferences and sandwich trainings. The skills lacking include use of web 2.0 technologies and software/system development. The study concluded that academic librarian play significant roles in facilitating and supporting teaching, learning and research. It is recommended that librarians participate in regular and sustain participation in trainings that can improve their competences as well as provide them with current and relevant digital information resources to administer effective and efficient services.

Keywords: IT skills, academic librarians, northwest, Nigeria

Introduction

The roles of the librarians has been reported to be indispensable in any university system because apart from facilitating teaching, learning and research, the library harnesses, process, arrange, store and acquire the requisite information resources that support all stakeholders information needs who comprise staff, students, surrounding communities and visitors.

These roles of librarians are affected today by embedded technologies into the operations of the library services which has tremendously improve services, characterized by prompt, effective and efficient response to information enquiries from the library. The areas affected by the introduction of information technologies include acquisition now required to take into cognizance resources formats, storage media, processing facilities and the technical-know-how before payments. Others are library equipment which must be able to fit into the library outreach services and conform to modernity.

Therefore, the only way librarians can fit into university new environment according to Batool and Ameen (2010) is when librarians acquire technological tools and skills to function in the changing environment. Unfortunately, librarians do not have a choice but to comply because they guide students and faculty on different platforms that leads to access and utilization of information, librarians are charge to instructlibrary research sessions, develop library collections and be involved with other activities that are customer-focused. According to Bordonaro (2007) academic librarians teach the utilization and application of ICT for digital literary activities and also participate in other faculty based activities in the university.

Within the context of libraries, digital libraries according to Trivedi (2010) is "a library in which collections and resources are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers". IFLA/UNESCO (2011) manifesto for digital library noted that "a digital libraryis an online collection of digital objects, of assured quality, that are created or collected and managed according to internationally accepted principles for collection development and made accessible in a coherent and sustainable manner, supported by services necessary to allow users to retrieve and exploit the resources". Therefore, for services to be exploit academic librarians need IT skills for a number of reasons which include to also remain competitive as many players are now involved with information provision. Prominent competitors to the library are Internet cafe, mobile communication mediasand many others in the information professionthough have been found to lack the capacity to perform subject and content analysis, serve as educators and intermediaries but still insist to operate even when they cannot provide quality information resources and services (Sharp, 2002).

According to APLEN (2008), information technology (IT) skills for library professionals provide the interface on which skills, knowledge and behaviors related to ensure organizational success, improved personal performance and career building. It has earlier been reported by Chan (2005) that those with information technological skills, perform analytical thinking, are very familiar with new concepts, are able to transfer knowledge, pursue and demonstrate expertise, and importantly resolve routine problems without assistance. It becomes very imperative therefore to investigate the skills of library policy makers in the university system, what key roles they play when it comes to the adoption of ICT for service delivery and what must be done to enable them embrace the technologies. These constitute the problems this paper intends to mitigate.

Research Questions

1. What are the educational entry qualifications of academic librarians in the study areas?
2. What skills acquired by academic librarians enable them to function effectively in information technology environments in their respective university libraries?
3. What avenues are explore by academic librarians to acquire IT skills
4. What are the challenges hindering the acquisition of requisite IT skills by academic librarians to effectively function in the selected libraries in Nigerian Universities?

Literature Review

Qualification for who serve as academic librarian was itemized by Birdsall (2001) to comprise:

- Strong technical and technological pace that includes knowledge of the

appropriate selection and application of technology to solve information problems, data design, and the principle of organization of information;
- Understanding of the characteristics of information transfer, including users' information seeking behaviours and information generation activities within the various disciplines;
- Skills in identifying and analyzing the information needs of various constituencies served and how the information need would be met through the complex information agencies;
- Understanding of the generation and distribution of information and of the changing paradigm shift from print based information production to other modes of production and distribution;
- Communication theory and its application to information repackaging.

Tyson (2007) stressed that with shaping of libraries, library staff should also be transformed to serve the present generation who need information anytime and anywhere. The skills of librarians should link to the technological infrastructure of the current trend.

Choi and Rasmussen (2006) conducted a study to identify the technological knowledge and skills required by current practitioners in US libraries. The findings show that 35% of respondents job responsibility based on website related activities, 26% based on digital project initiatives, 21.7% related to maintaining technical standards and practices and only 17.3% related to other activities.

Adeyoyin (2006) in a survey conducted among members of academic staff of 28 university libraries in West Africa to ascertain their information and communication technology (IT) literacy level, found that there was a need for knowledge acquisition among the librarians in Nigerian university libraries to be able to offer efficient services because the IT literacy among the librarians was low. Safahieh and Asemi (2008) assessed the computer literacy skill of librarians in Isfahan University of Iran. The results indicated that majority of the librarians have acquired their computer skill through informal channels. Library software is the most commonly used software among librarians and the less used software was database management software. Ramesh *et al.* (2007) reported that librarians in Tamil Nadu have acquired basic skills in IT, but they lack knowledge and application of network-based services and digital library services. Worthy to note is that though IT skills, particularly in relation to the internet are essential, basic professional skills should not be abandoned.

The most common problem cited by the librarians was frequent breakdown of system, electric power failure, and inadequate computers in the libraries and librarians' inadequate computer skill.

Research Method

The survey research method was adopted for the study. The population of the study consists of all university libraries in Northwest Zone of Nigeria that have functional digital libraries and services. The selected federal universities are Ahmadu Bello University, Zaria; Bayero University Library, Kano; Nigerian Defence Academy, Kaduna and Usmanu Fodiyo University, Sokoto. The selected state owned university libraries with functional digital libraries were: Kaduna State University Library, Kaduna; Umaru Musa University, Katsina; Kano University of Technology, Wudil, and Kebbi State University of Science and Technology, Alero.

The purposively selected target population is the 62 academic librarians of the above listed university libraries. These number comprise of the 8 University

Librarians and 54 academic librarians working in the digital libraries and IT service units of the universities. Questionnaire was the instrument used for data collection. Data collected was analyzed descriptively using frequency counts, percentages and results presented in tables.

DATA ANALYSIS AND DISCUSSION

Out of 62 copies of the questionnaire administered, a total of 52 (83.9%) were returned and found usable for the study. Table 1 shows the response rates according to each university library and percentage scores of their respective rates.

Table 1: Response rate of digital librarians in the northwest Nigerian Universities

University Library	Sample Size	Response Rate	Percentage
Kashim Ibrahim Library, Ahmadu Bello University, Zaria. Kaduna State.	11	11	17.74
Bayero University Library, Kano, Kano State.	12	9	14.52
AbdulLahiFadiyo Library, UsmanuDanfodiyo University, Sokoto, Sokoto State.	9	7	11.29
Nigerian Defence Academy Library, Kaduna, Kaduna State	6	6	9.68
Kaduna State University Library, Kaduna, Kaduna State	7	7	22.29
Kano State University of Technology Library, Wudil, Kano State.	6	4	6.45
Umaru Musa Yar'adua University Library, Katsina, Katsina State	7	6	9.68
Kebbi State University Library, Aliero. Kebbi State	4	2	3.23
Total	**62**	**52**	**100**

The university that lagged with the highest poor response was recorded in Bayero University library where three questionnaires were not returned. Responses from Kashim Ibrahim Library, Nigerian Defence Academy Library and Kaduna State University Library equaled the administered questionnaires number. This is commendable and may be attributable to academic librarians enjoying several forms of IT skill to facilitate their work.

Educational qualifications of academic librarians

Data collected on entry qualifications of academic staff and their spread in the respective university is presented in Table 2.

Table 2: Educational qualification of Digital Librarian

Educational qualification	Frequency	Percentage (%)
BLS degree	28	53.84 %
B. Sc. Computer Science	4	7.92%
B. Sc. Lib & Inf. Tech.	8	15.38%
MLS/M. Sc.	13	25.00%
PhD	0	0.00%
Total	**52**	100%

Table 2 show that majority 28(53.84 %) of the academic librarians working in the northwest zone of Nigerian universities possesses BLS degree only, while 8 (15.38%) have B.Sc. Lib. & Inf. Tech. degrees. Those with B.Sc. Computer Science degrees were 4 (7.92%), while the highest qualification was MLS/M.Sc. degree with scores of 13 (25.00%). The findings confirm conformity with the minimum entry qualifications for academic librarians according to National University Commission to the possession a first degree.

Skills acquired by academic librarians

The response of the status of skillfulness of academic librarians in effective service delivery in the digital and IT services are presented in Table 3.

Table 3: Distribution of the status of IT skills of academic librarians

Types of IT skills	Skillful		Not skillful	
	F	%	F	%
Web site maintenance	32	61.5	11	21.2
Networking	28	52.8	7	13.5
Software/system development	17	32.7	28	53.8
Institutional repository management	12	23.1	3	5.7
Project management	15	28.8	7	13.5
System application	29	55.8	6	11.5
Use of web 2.0 technologies	9	17.3	29	55.8

Table 3 reveals the status of academic librarians. The results shows that website maintenance, system application and networking with a score of 32 (61.5%), 29 (55.8%) and 28 (52.8%) were the most possess skills that are put to use by most of the academic librarians. This could be attributable to the fact that 46.2% of the respondents have B.Sc. degree in Computer science andare spread across all the libraries who may be responsible for the teaching, application and exposure of subordinates to the utilization of the skills in library works. However, there was deficiency of skills with respect of web 2.0 technologies and software/system development with a score of 29(55.8%) and 28 (53.8%). This could be blamed on the technicalities that are required to function effectively in these environments.

Where academic librarians acquire IT skills

Where academic librarians acquire IT skills is provided in Table 4.

Table 4: Response on how academic staff acquire IT skills

Ways to acquire IT skills	Agree		Disagree	
	F	%	F	%
I got my IT skills from the formal education I receive during my study years	10	19.2	4	7.7
My IT skills are through the workshop I attended	17	32.7	17	32.7
My library organized in house IT skills training for the digital librarians	8	15.8	30	57.6
Conferences give me the require skills I need to work in the digital library	4	7.7	29	55.8
Acquires skills through self-learning from collogues and personal reading	34	65.4	4	7.6
I got my skills from online IT training and IT online forum	14	26.9	26	50.0
My IT skills are from the computer school I attended	20	38.5	18	34.6
My IT skills was from the exchange programmed with other university	5	9.6	37	71.2

Table 4 shows the disparity of how and where academic librarians acquired IT skills to function in the digital environment in the locations of the study. Thirty four (65.4%) and 20 (38.5%) acquire skills from self-learning through colleagues, personal reading and through computer schools. While 4(7.7%) and 5(9.6%) acquired IT skills from conferences and exchange programmes. This implies that exposing academic staff to any open opportunity can be of immense contributions to library service effectiveness and efficiencies.

Challenges affecting the acquisition of skills

The factors affecting the acquisition of IT skills for effective and efficient service delivery by academic librarians is presented in Table 5.

Table 5: Challenges of the academic librarians in the northwest zone of Nigerian Universities

Type of Challenges	Institution									
	ABU	BUK	UDUS	NDA KD	KASU	KSUT KN	UMYU KT	KSU	TOTAL	%
Lack of constant refresher courses/ Capacity building	11	9	7	6	7	4	6	2	52	27.2
Colleagues and fellows are not cooperated	6	5	4	3	4	2	4	1	29	15.2
Short library internship period	10	7	6	4	5	2	3	2	39	20.4
Lack of Parents Body Support	2	6	4	2	6	3	5	1	29	15.2
Lack of adequate IT Facilities	3	2	1	2	2	1	3	1	15	7.9
Lack of Basic Infrastructural facility	6	3	5	2	4	3	2	2	27	14.1
									Total	100

Table 5 itemized the factors affecting the smooth acquisition of IT skills by academic librarians in Nigerian universities studied. It was discovered that lack of constant refresher courses/capacity building and short library internship period significantly affects skill acquisition with scores of 52 (27.2%) and 39 (20.4%) responses respectively. However, lack of IT facilities has the least scores as factors hindering the contribution to skill acquisition (15 (7.9%)).

Conclusion

In the light of above discussion, it could be concluded that academic librarians in Northwest Nigerian Universities have IT expertise in website maintenance, system application and networking; but lack sufficient skills to operate web 2.0 technologies and software/system development to function in the digital environment. However, most of the respondents indicated that they acquire their skills through self-learning, co-workers and personal reading and research. Arising from the findings and conclusion of this study, the following recommendations are made:

1. Academic librarians should have skills in the use of web 2.0 technologies such as face book, blogs, second life, twitter, Skype, YouTube; bulk SMS, and institutional.
2. Terminal degree should be encouraged through sponsorship and release of academic librarians by their institutions.
3. Academic librarians in the Northwest zone of Nigerian Universities need constant refresher courses/ capacity building and long library internship period to enable them function effectively in the ever changing technology and digital environments.
4. Most of the constraints are managerial, policy and infrastructural, therefore, it is recommended that managers of the libraries must re-strategize to get sympathy and support for the development of staff, infrastructures and conducive environment to implements programmes targeting the development of library clients and effective service delivery without season.

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