ASSESSMENT OF DIGITAL LITERACY OF ACADEMIC LIBRARIANS IN AHMADU BELLO UNIVERSITY LIBRARY COMPLEX A.B.U. ZARIA, NIGERIA

By

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Abstract
The paper examined the digital literacy of academic librarians in Ahmadu Bello University, library complex A.B.U. Zaria. The objectives of the study were to identify the types of Digital Literacy possessed by librarians in Ahmadu Bello University, Zaria, to determine the level of proficiency of Digital Literacy among the librarians and to find out the challenges of acquiring Digital Literacy among the librarians. Survey research design was adopted. The population of the study comprised of all the academic librarians in Ahmadu Bello University, Zarialibrary complex which are 116, because the population is not too much, all was used as no sample required. The instrument used for collecting data was the questionnaire. From the findings, it was discovered that use of Mobile phones, Electronic mailing, social networking, surfing internet, sharing resources online and carrying out computer operations are the major Digital Literacy possessed by the librarians. The level of proficiency in the use of digital technologies is however high for the use of mobile phones, and social networking, moderate for computer operations, sharing digital resources online, and was low in the use of electronic conferencing. The major constraints to the acquisition of Digital Literacy are electricity supply, lack of adequate digital facilities, internet network bandwidth and cost of digital literacy skills training. Recommendations were made; Management of A.B.U. Zaria library complex should provide regular and intensive training for librarians to update their knowledge and could be proficient in the use of such technologies. They should also provide enough digital facilities and increase the network bandwidth for the library.

Keywords-.Digital literacy, Academic librarians, Skills, library complex, Ahmadu Bello University, Zaria, Nigeria

Introduction

For librarians to survive in the global village, digital literacy is an essential competency in the second decade of 21st century. The world is fast turning into a global village, and as such, technological innovations are in abundance in almost every organization, library inclusive. It prompted them to shift from printed mode of operation to digital mode or combined mode. To live and work in the technology-enabled world of this second-decade of 21st century, high-level skills in the use of digital technologies are essentials for all citizens (Bulu and Champerswar 2007). These skills will make one to find, access, manage and communicate information in an online environment. To buttress the above statement, Ezeama, Ugwuani & Ugwu (2014) stressed that the present day

librarians are expected to be skilled in using computers, networking and the internet to fulfill their professional obligations of finding retrieving, searching of information and communicating it to their users using digital technologies.

Bawden (2008) asserted that digital literacy refers to the ability to evaluate internet resources, which differs qualitatively and quantitatively from evaluative skills required for printed materials, he put digital literacy as the ability to understand how to use information from a variety of digital source, and thus, simply regarded it as literacy in the digital age. In his assertion, Ezeani (2011), stressed that digital literacy will enable librarians and other information professionals to find, evaluate and make effective use of digital information, by creating, running and monitoring training programmes and materials for electronic information services, this appears to focus on not restricted to only the internet. Thus librarians will be able to educate and help users in finding and retrieving information resources necessary for their use in electronic format.

Digital literacy would furnish information professionals with the skills, knowledge and understanding that will help them to take a full and active part in civic, cultural and intellectual life of the people now and in the future. Williams and Hague (2009) stressed that the ability to make and share meaning in different modes and formats, to create, collaborate and communicate effectively and understand how and when digital technologies can best be used to support the provision of library and information services make digitally literate librarian. DL gives the librarians the ability to take advantages of the wealth of new and emerging opportunities with digital technologies whilst also remaining alert to the various challenges technology can present, it is what allows librarians to participate meaningfully and safely as digital technologies are becoming more pervasive in the society.

Statement of the Problem

The use of digital technologies in this second-decade of 21st century in libraries and information centers has made the world a global village where access and use of these digital technologies has become common place all due to influx of information. These digital technologies require librarians to be skilled on how to use, access, communicate and find information using them.

However, digital skills of librarians especially in this digital age in A.B.U. Zaria library complex have been noticed to be very low, many librarians seem to lack skills on how to operate the computer, access the email or interact through the internet, they also seem not to possess the skills to use the computer to access and provide information to their library users digitally but rather traditionally using manual mode of providing access to information in the libraries which derived out library customers from patronizing the libraries because the library customers don't have confidence on the librarians. To ensure patronage of library services and librarians by library clients, librarians with necessary knowledge and skills must be put in place (Oberg, Schleiter, Honor 1989, and Babin and Darbin 2000 in Abdurrahman 2016).

Research Questions The following research questions were raised for the study;

1. What are the types of Digital Literacy possessed by librarians in Ahmadu Bello University library complex of Nigeria?
2. What is the level of proficiency of Digital Literacy among librarians in Ahmadu Bello University library complex of Nigeria?
3. What are the challenges of acquiring of Digital Literacy among librarians Ahmadu Bello University library complex of Nigeria?

LITERATURE RIVIEW

Digital literacy as defined by Glisters (1997), are set of skills to access the internet, find, manage and edit digital information, join in communications, and otherwise engage in online information and communication network. In the same year he put it as proficiency in utilizing and manipulating information in online-format and to process information from a variety of sources and formats so that one can create one's own knowledge path. These skills, that will make one to find,

access, manage and communication information in an online environment from the digital technologies require tracing which brings about digital literacy. Also Ezeani (2011) asserted that digital literacy refers to the ability to evaluate internet resources, which differs qualitatively and quantitatively from evaluative skills required for printed materials, he put digital literacy as the ability to understand how to use information from a variety of digital source, and thus, simply regarded as literacy in the digital age. This is why librarians must endeavor to equip themselves with technological skills that will be useful in providing resources and services to the library users in this digital era.

Components of Digital Literacy

Joint Information System Committee (JISC, 2011) pointed out that digital literacy encompasses capability which fit an individual for living, learning and working in a digital society. And these capabilities are ICT/computer literacy, communication and collaboration, media literacy, information literacy, digital scholarship, learning skills and life planning.

ICT Literacy: ICT literacy is the ability to use digital technology, communication tools and networks appropriately to solve information problems in an information society. ICT literacy is a set of skills and understanding required by people to enable meaningful use of ICT appropriate to their needs, the ICT literacy of an individual is a relative measure of individual's capacity to make appropriate use of ICT for educational and learning purposes. The international telecommunication union (2007) reflects the notion of ICT literacy as a continuum that allows the measurement of various aspect of literacy, from daily life skills to the transformative benefits of ICT proficiency.

Computer Literacy: Schwartz (nd) stressed that computer literacy is the learning of specific hardware and software applications, the knowledge and ability to utilize computer and related technology, with a range of skills covering levels form elementary use to programming and advanced problem solving.

Media Literacy: Media literacy is the ability to critically and creatively produce academic and professional communications in a range of media. It is the ability to understand how mass media work, how they produce meaning, how they are organized, and how to use them wisely. It is the ability to read, analyze, evaluate, and produce communications in a variety of media (print, TV, computers, the art) etc.

Visual Literacy: Visual literacy refers to a group of vision-competencies a human being can develop by seeing and at the same time having and integrating other sensory experience. The development of these competencies is fundamental to normal human learning which will enable a visually literate person to discriminate, and interpret the visible actions, objects, symbols, natural or man-made he encounters in his environment.

Information Literacy: Information literacy according to Abdulaziz (2004) as cited by Dangani (2010) is an intellectual framework and a social process for understanding, finding, evaluating, communicating and using information which may be accomplished in part by fluency with information technology, in part by social investigation methods, but import out, though critical discernment and reasoning. Information literacy is the ability to find, interpret, evaluate, manipulate, share and record information, especially scholarly and educational information, dealing with issues of authority, reliability, provenance, citation, and relevance in digitized scholarly resources

Communication and Collaboration: Communication and collaboration are at the centre of today's organization, but unlocking maximum results requires more than simply deploying the right technology tools. As digital age unfolds, it's increasingly clear that communication and collaboration are at the centre of organization success. It is the ability to participate in digital networks of knowledge, scholarship, research and learning, and in working groups supported by digital forms of communication.

Digital Scholarship: Digital scholarship according to Gerolimas, and Konsta, (2008) entails the use of digital evidence, methods of enquiry, research, publication and preservation to achieve scholarly and research goals. It encompasses both using digital media and research on digital media.

Life Planning: Joint Information System Committee (2011) perceived life planning as the ability to make informed decision and achieve long-term goal; supported by digital media and tools including personal and professional development, identity and reputation. A life planning is a map that will help librarians, guide them toward satisfying their target audience and as well towards having a meaningful life.

Learning Skills: Learning skills are simply the skills that learned person has that differentiate him from non-learned person. Learning skills encompasses all the process skills involve in effective learning. Learning skills is the ability to study and learn effectively in technology, rich environments, formal and informal, including use of digital tools to support critical thinking, academic writing, note taking, reference management, time and task management, attending to feedback in digital/digitalized formats, independent study using digital resources and learning materials (Joint Information system committee, 2011). Learning skills can be sub-divided into three sub-categories of skills:

- **Cognitive Skills:** It includes information processing, storage, retrieval, analysis, synthesis and communication skills. These will help librarians in the technology – rich environment to serve their clientele better.
- **Affective Skills:** These are skills to build resilience in learning, to learn to deal effectively with any setbacks and difficulties, to learn how to bounce back, and make changes and persevere.
- **Meta Cognitive Skills**: This refers to the learner's awareness and knowledge of their own abilities and tendencies to control those processes during learning. Meta cognitive action activities include planning, organization and implementation of specific cognitive and effective skills, monitoring effectiveness and making changes where necessary.

All these capabilities are expressed in specific learning, teaching and research activities which take their meaning from the subject areas in which they are practiced. Responsibility for these capabilities is often located with specific professionals in the educational organization, for instance the library, learning centre, careers and e-learning teams.

Nicolas and Williams (1998) and Bulu and Champeswer (2007) summarized the characteristics of a digital literate individual as a person who has the:

1. Ability to determine the extent of digital information needed.
2. Ability to access the needed digital information.
3. Ability to evaluate digital information sources and services critically.
4. Ability to incorporate selected digital information into one's knowledge base.
5. Ability to make informed judgments about what is found online, which he quotes, which will help him make a balanced assessment by distinguishing between contents and its presentation.
6. Searching skills essentially based on internet search engines.
7. Ability to use digital information effectively to accomplish a specific purpose.
8. Ability to manage the information flow using information filters and agents.
9. Skills of reading and understanding in a dynamic and non-sequential hypertext environment.
10. Knowledge assembly skills, building a reliable information horde from diverse sources, with the ability to collect and evaluate both fact and opinion ideally without bias.
11. Wariness in judging validity and completeness of materials' references by hypertext links.
12. Ability to understand a problem and develop a set of questions that will solve that problem.
13. Understanding of backing up traditional forms of content with network tools.
14. Ability to understand the economic, legal and social issues surrounding the use of digital information access and use of this information ethically and legally.

METHODOLOGY

The research design adopted for this study is survey. Aina (2004) asserted that survey research is a systematic and comprehensive collection of information that reflects the opinions, attitudes, feelings, beliefs and behaviors of people on an issue. The population of the study comprises of all the

academic librarians in Ahmadu Bello university library complex which are 116; because the population is not too much, all was used as no sample is necessary. The research instrument used for collecting data was questionnaire. It was used due to its advantages as recommended by Aina (2004) that, questionnaire as an instrument for data collection was used in descriptive or survey research as it is more economical in terms of time, effort and money.

Result and Discussion

Table 1: Distribution of Librarians by Gender

Gender	Frequency	Percentage%
Male	38	48
Female	41	52
Total	79	100

Table 1 showed that majority of the librarians are females with a population of 41 (52%) and males were 38 (498%).

Type of Digital Literacy Skills possessed by Librarians

Table 2: Type of Digital Literacy Skills possessed by Librarians

Digital Literacy Skills	Freq.	Percentage%
Electronic mailing	74	94
Social networking	74	94
Use of PDAs	40	51
Mobile Phones	77	98
Surfing of Internet	63	80
Electronic Conferencing	40	51
Computer operations	62	79
Multimedia projecting	35	44
Electronic bulletin boards	34	43
Computer accessories navigation	39	49
Bogging via network	28	35
Share resources online	63	80

Table 2 showed that DLS found among librarians was 77(98%) mobile phones usage , 74 (94%) electronic mailing, 74(94%) social networking, 63(80%) surfing internet, 63(80%) sharing resources online, 62(79%) computer operations, 40(51 %) use of PDAs, 40(51 %) electronic conferencing, 39(49%) computer accessories navigation, 35(44%) multimedia projecting, 34(43%) electronic bulletin board, and 28(35%) blogging via network. The vast majority of skills were found to be mobile phone usage, electronic mailing, PDAs usage, internet surfing and social networking. The findings was in agreement with that Emiri (2015) that DLS found among librarians includes electronic mailing, electronic conferencing, mobile phones usage, PDAs, computer accessories navigation and internet surfing.

Level of Digital literacy skills Proficiency by Librarians

Table 3: Level of Digital literacy skills Proficiency by Librarians

Digital Literacy Skills Proficiency	Highly Proficient	Proficient	low Proficient	Mean	S.D
Electronic mailing	32 (41 %)	29 (37 %)	4 (5%)	2.0	1.3
Social networking	32 (41%)	30 (38%)	3 (4%)	2.01	1.4
Use of PDAs	15 (19%)	23 (29%)	7 (9%)	1.2	0.8

Mobile Phones	39 (49%)	37 (47%)	1 (1%)	2.4	1.7
Internet Surfing	21 (27%)	35 (44%)	5 (6%)	1.8	1.2
Electronic Conferencing	1 (1%)	25 (32%)	24 (30 %)	0.9	0.7
Computer operations	24 (30%)	37 (47%)	3 (4%)	1.9	1.3
Multimedia projecting	17 (22%)	18 (23%)	13 (17%)	1.3	0.8
Electronic bulletin boards	12 (15%)	20 (25%)	13 (17%)	1.3	0.7
Computer accessories navigation	17 (22%)	25 (32%)	7 (9%)	1.4	0.9
Bogging via network	12 (15%)	17 (22%)	11 (14%)	1.0	0.6
Share resources online	22 (28%)	38 (48%)	5 (6%)	1.9	1.2

As a library staff, I am proficient in using mobile phones 39 (49 %) was ranked highest with Mean Score Rating (Mean=2.4), followed by proficiency in the use of electronic mailing and social networking with 32(41%) with Mean Score Rating (Mean=2.0) each, it was followed by proficiency in computer operations with 24(30%). The finding also revealed that sharing of resources online and internet surfing is another proficiency librarians are having with 22(28%) and 21(27%) with average mean score rating of 1.5 and 1.25 respectively. It can also be seen clearly from the findings that the librarians are having low proficiency in the use of electronic conferencing and electronic bulletin boards. This calls for serious concern by the library management because use of digital resources is now one of the major concerns of all library and information service providers as it enhances effective service delivery.

Challenges of Acquiring Digital literacy skills by Librarians

Table 4: Challenges of Acquiring Digital literacy skills by Librarians

Challenges of Acquiring Digital Literacy Skills	Freq.	Percentage%
Technophobia	34	43
Cost of digital skill training	54	68
Lack of digital facilities	60	76
Inaccessibility of facilities	45	57
Network bandwidth	60	76
Lack of funding	57	72
Electricity supply	65	82
Obsolesce of facilities	51	65
No Conducive environment	38	48
Attitude of Information professionals	39	49
Absence of training on the use of Digital resources	51	65
Erratic connectivity	1	1
Inadequate funding	1	1
Segregation in choosing who should go for training	1	1
Lack of concentration from personnel	1	1

Challenges on the acquiring DLS highlighted in table 4 showed that 65(82%) was related to electricity supply, 5(7%) age, inadequate digital facilities and network band width with 60(76%) each, financial incapability, 57(72%), cost of digital skill training 54(68%), obsolete of digital

resources and lack of continued training for the use of digital resources with 51(65%) each, inaccessibility of digital facilities with 45(57%), attitude of the information professionals with 39(49 %), lack of conducive environment with 38(48%), and issues of technophobia with 34(43%). The results showed that the major challenges are absence of adequate digital facilities, electricity supply, issues of inadequate network bandwidth, and in some instances lack finance for the purchase of the digital resources. It was in agreement with the findings of Adomi (2005) and Oduwole & Sowole (2006) and Salaam & Adegbore (2010) who identified problems in the adoption and usage of digital resources in Nigeria to include lack of adequate digital skills among staff and users, low basic information literacy levels in the population and prohibitive cost in developing countries to gain access to the internet.

Summary of findings

The following findings were made

1. Mobile phones, Electronic mailing, social networking, surfing internet, sharing resources online and computer operations are the major DL possessed by the librarians.
2. The level of proficiency is in the use of digital technologies is however high for the use of mobile phones, and social networking, moderate for computer operations, sharing digital resources online, and were low proficiency in the use of electronic conferencing.
3. The major constraints to the acquisition of DL are electricity supply, lack of adequate digital facilities, internet network bandwidth and cost of digital literacy skills training.

Conclusion

The acquisition digital literacy skills by librarians have been discovered to enhance individual service delivery for the clients. And for the librarians to fulfill their primary assignments of serving the needs of users, meeting the aims and objectives of the library and that of the institutions, the librarians must be acquainted with all the necessary digital literacy skills to accomplish their tasks. This is because the level of digital expertise of the librarians in this digital technology era will determine to a large extent how effectively they are able to perform their jobs and carry out routine jobs in the library.

RECOMMENDATIONS

The following recommendations were made from the findings

1. Management of A.B.U. Zaria library complex should provide regular and intensive training for librarians so as to help update their knowledge in use of digital technologies so that they could be proficient in the use of such technologies.
2. Management of A.B.U. Zaria library complex should provide enough digital facilities, quick response to electric power outage, increase the network bandwidth for the library and as well workshop should given to all the information professionals on regular basis on the basis of priority not based on segregation in the choice of who goes to the training.

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