

**LIBRARIANS' DIGITAL LITERACY: A PANACEA TO THE GROWTH OF
DIGITIZED UNIVERSITY LIBRARIES IN DELTA STATE**

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Abstract

This study investigates the level of digital literacy of librarians, whether it is responsible for the slow growth of digital university libraries in Delta State, Nigeria. This study adopts a descriptive survey method. The questionnaire was used to elicit information from a sample of 225 (two hundred and twenty-five) drawn from a population of 255 university librarians in Delta State. The availability sampling technique was used to arrive at the sample of the study. Frequency counts, means, standard deviation and t-test were used for the data analysis. Findings show that digital literacy of librarians does not hinder the growth of digitized university libraries in the State. However, the librarians could not make use of digital cameras, scanners, digital imaging software amongst others. Lack of digital literacy courses in Library and Information Science curriculum in Nigerian Library Schools, inadequacy of fund, lack of basic computing skills, unavailability of digital library services, and lackadaisical attitude of head librarian towards the training and retraining of library staff are challenges plaguing the digital literacy level of librarians, and as such, could be responsible for the slow growth of digitized university libraries in Delta State. It was recommended that funds should be provided for the training and retraining of librarians on how to use digital library technologies to enhance effective service delivery.

Introduction

The 21st century library is best described as a digital library where information resources are made available to users in electronic formats and by digitally literate staff. University libraries in Nigeria in general and Delta State in particular are striving to ensure that traditional library resources are available in machine readable forms. According to Islam (2014), digitization has

become a practical necessity and reality with technology interventions to provide improved access to information sources, preservation and dissemination as required, at anytime; anywhere and any place as it were. This is to allow for ease of access, speed in service delivery, user-friendly interface in information search and retrieval and dissemination of information to a wide range of users simultaneously. This will

only be possible if especially the library staff possess digital literacy.

Digital literacy is the ability to find, evaluate, utilize, share, and create content using information technologies and the internet (Connell University, 2014). According to Wikipedia (2014), digital literacy is the knowledge, skills and behaviours used in a broad range of digital devices such as Smart phones, tablets, laptops and desktops all of which are seen as networks, rather than computing devices. A digitally literate librarian is that who is competent in the use of digital devices like computers, internet, and other devices like CD-ROMS (compact disc read only memory), scanners, *inter alia* to meet users' needs. Therefore, for libraries to participate in the digital environment, it is pertinent for them to be highly competent and skilled in the use of technological devices. However, the situation in Universities in Delta State shows that most of the libraries are still striving to digitize her resources. This study, therefore, examines the digital literacy level of librarian's as it invaluable to the growth of digitized university libraries.

Statement of the Problem

In today's librarianship a paradigm shift has been observed in the mode of service delivery in university libraries. Majority of the users of the university libraries prefer online information resources to print resources, hence, patronage of the library is reduced. A look at the university libraries in Delta State shows that none of the libraries are digitized. In as much as these libraries are striving to ensure that the library's

resources are digitized, the speed at which the projects in these university libraries are being digitized shows that it is done at a very slow speed. This is despite the fact that university management has now woken up to see the need for digitizing her libraries sby releasing funds for the projects. This is evident in the availability of electronic library sections in the university libraries in the state. This has prompted this study to look at the digital literacy level of librarians to see if it is responsible for the slow rate of digitizing the libraries' resources.

Research Questions

This study seeks to answer the following research questions:

- i. To what extent are librarians digitally literate in university libraries in Delta State?
- ii. Is there difference in the digital literacy level of male and female librarians in university libraries in Delta State?
- iii. What are the challenges to the digital literacy of librarians in university libraries in Delta State?

Research Hypothesis

The study is guided by this hypothesis:

Ho there is no significant difference in the digital literacy level of male and female librarians in university libraries in Delta State

Literature Review

In a digital library, resources are stored and made available in electronic forms, and the services of the library are also made available electronically. Rosenberg (2005)

notes that these services are made available frequently over the Internet so that users can access them remotely. This refers to e- services which most libraries are trying to embrace in the digital environment.

Rosenberg states that as libraries embrace the digital environment, their most crucial role is not that of providing e-resources, but of establishing services that facilitate access to the information available. According to Fabunmi, Paris and Fabunmi (2011), library digitization has become part of the work of librarians, and most libraries are involved in digitization. Libraries in Nigeria are not left aside in this digitization trend in universities.

Digital literacy is paramount if digitized university libraries are to emerge. The staff of the university libraries is expected to be knowledgeable in the use of digital devices to speed up digitization processes in the libraries. Obuh (2009) studies electronic resources use in universities and found that librarians are good in computer literacy. This contradicts the findings of Munusamy & Ismail (2009) who emphasized poor skills in technology devices use by professional librarians. Iwhiwhu and Eyekpegaha (2009) examine the present digitization projects in Nigerian university libraries and the challenges they pose to effective information delivery. The results from the paper reveal that, the libraries lack written policy on digitization, inadequate ICT infrastructures and manpower, fund, and inadequate government support. Staff aren't given training on digital literacy to enable them adequately utilize the available digitization devices, thus posing challenges to effective information delivery.

Oghiagbephan & Asamaigo (2010) opines that the librarian's digital literacy level determines the existence of a digital library. They stress the need for training and retraining of library staff in the digital environment. Ikolo and Okiy (2012) works on gender differences in computer literacy among clinical medical students in selected Southern Nigerian universities. They found that the staffs are not digitally literate and such poses a threat to the growth of digital libraries in the region. They stressed that gender difference in digital literacy exist among library staff and that female staff are less literate than their male counterparts. Ogugua and Emerole (2010) in their study discover that for effective actualization of the project, digitization operates with certain components which included: databases, networking, internet, website, email and e-library. Various problems that pose obstacle to the project were identified, especially, unavailability of digitally literate library personnel, poor telecommunication facilities, erratic power supply from the defunct PHCN (Power Holding Company of Nigeria), and poor funding of university libraries, amongst others. Ogunsola and Okusaga (2008) decries the problem of poor technical know-how of librarians in the digital environment, while Asuquo & Onasanya (2006) lament the inability of library staff to operate machines such as digital cameras. Islam (2014) also notes that the reason for the slow growth of digital libraries in Nigeria is the inability of librarians to use modern technologies. This slows down the growth of digitized university libraries in Nigeria in general. Gender issues in digital literacy have received little concern among researchers in

recent times. Obuh (2009) shows that males are more digitally literate than their female counterparts. Gender refers to sets of relationships attributes, roles, beliefs and attitudes that define what being a man or a woman is within the society. It is a socially ascribed attribute as opposed to sex which is a biological attribute (Oghiagbephan & Asamaigo, 2010). As a result of gender roles assigned by different cultures many, women have been brought up to see technology and its use as reserved for on the male gender. According to Munusamy & Ismail (2009), women look at computers and see more than machines, thus considering computers as masculine and complicated to use. According to Asuquo & Onasanya (2006), many factors in and outside the classroom result in girls being turned away from computer technology. These factors include the media depicting men as experts in technology, societal expectations of different goals for boys and girls, the structure of learning tasks, the nature of feedback in performance situations, and the organization of classroom seating. Because these factors are often subtle, they go unnoticed. It is little wonder why girls are not interested in computer technology. This situation has led to what scholars have termed the gender digital divide.

Explaining this, Ikolo (2010), states that the gender digital divide is manifested in the low number of female users of ICTs compared to men. Gurumurthy (2004) observes evidence that point towards gender imbalance in the use of computers and other technologies. According to Tella and Mutula (2008), the issue of gender equity, as far as access to and use of ICTs continues to be a

topical subject not only in developing countries but the world over. However, available indices have begun to suggest that, although there is a gender gap in all countries, with the significant growth in access to and increased educational opportunities for more women, the relative difference between men and women is diminishing (Sorenson, 2002, Kay, 2008 & Munusamy & Ismail, 2009).

Methodology

The study adopts a descriptive survey design to carefully describe the importance of digital literacy on ensuring the growth of digitized university libraries. The population of the study comprises professional and non-professional librarians in university libraries in Delta State. There are four (4) university libraries in the state which include Delta State University, Abraka, Federal University of Petroleum Resources, Effurun, Western Delta University, Oghara, and Novena University, Ogume. The rationale for the use of these four universities is that as at when the study was conceived, only these universities existed in Delta State.

Furthermore, the two new universities (Edwin Clark University & Michael & Cecilia Ibru) are at their infancy stage with very low staff strength. There are a total of 255 (two hundred and fifty-five) professional and non-professional librarians in the universities. The total enumeration sampling technique was used for the sampling hence all 255 staff were sampled for the study, and based on their availability, 225 (two hundred and twenty-five) (88%) respondents were used for the study while 20 (twenty) (12%) were not available. Frequency count was used to analyze the respondents' demographic data

and research questions 1 and 3, mean and standard deviation was used to answer research question 2, while t-test was used for testing the formulated hypothesis. Statistical Package for Social Sciences (SPSS) was used for the data analysis.

**Data Analysis and Discussion of Findings
Analysis of Respondents’ Demographic
Data**

Table 1: Gender

Gender	Frequency
Male	127
Female	98
Total	225

The data from table 1 shows that 127 of the respondents were male while 98 were female. 67 of the total respondents were professional librarians while 158 of them were non-professionals. This is shown in table 2 below:

Table 2: Status

Status	Frequency
Professional	87
Non-professional	158
Total	225

Table 3: Working Experience

Working Experience	Frequency
1-5 years	69
6-10 years	78
11 years and above	78
Total	225

The data on table 3 shows the working experience of the librarians. 69 of the respondents have 1-5 years’ experience, 78 have 6-10 years’ experience while 78 had a working experience of 11 years and above.

Digitally Literacy in University Libraries in Delta State

The respondents were asked to rate the extent to which they are literate in the use of digital devices and applications. Table 4 below shows their response rate: VLE=Very large extent, LE= Large extent, SE=Small extent while VSE=Very small extent

Table 4: Digital Devices and Applications

Digital Devices and Applications	VLE	LE	SE	VSE
Digital Cameras	9	18	111	87
	33	74		
Scanners			90	28
	83	72		
Computers			50	20
	48	65		
Smart phone			82	30
	11	19		
Digital imaging software			173	22
	98	77		
Printers			40	10
	83	72		
Internet applications			50	20
Online Public Access Catalogues (OPAC)	38	29	88	70

The data on table 4 above shows that out of the 225 librarians, only 9 could use digital cameras to a very large extent, 18 large extents, 111 small extents and 87 very small extents. Asuquo and Onasanyo (2006) also found that majority of librarians do not know how to operate digital cameras hence they seek help from cameramen outside the library. 33 of the respondents to a very large extent could use scanners, 74 could use it to a large extent, 90 to a small extents and 28 to a very small extent. On computers, 83 of the respondents know how to use them to a very large extent, 72 to a large extent, 50 to a small extent and 20 to a very small extent.

According to Obuh (2009), librarians especially professional librarians now have the competency of operating personal computers as libraries transcend to the use of electronic resources. 48 of the respondents could use Smart phones to a very large extent, 65 to a large extent, 82 to a small extent and 30 to a very small extent. Only 11 librarians could use digital imaging software to a very large extent, 19 to a large extent, 173 to a small extent and 22 to a very small extent. This finding matches with the finding of Munusamy & Ismail (2009) who found that professionally trained librarians lack knowledge in current technological devices and as such pose a threat to the use of

modern technologies in university libraries. On printers, 98 of the respondents could use them to a very large extent, 77 to a large extent, 40 to a small extent and 10 to a very small extent. 83 of the respondents know how to use internet applications to a very large extent, 72 to a large extent, 50 to a

Difference in Digital Literacy of Librarians by Gender

The data on table 5 was used for the analysis of the difference between male and female librarians in their digital literacy level. To obtain the mean response, the following

Table 5: Mean difference of Librarians’ digital literacy level by gender

Paired Samples Statistics

	Gender	Mean	N	Std. Deviation	
					Std. Error Mean
Pair 1	Male	22.39	98	2.955	.299
	Female	22.27	98	2.966	.300

small extent and 20 to a very small extent. On the use of Online Public Access Catalogue (OPAC) 38 can use it to a very large extent, 29 to a large extent, 88 to a small extent and 70 to a very small extent. This finding is in relation with the finding of Islam (2014) who pointed out that majority of the staff do not really possess the skill required for the library to use modern technologies especially the OPAC.

The table revealed that the mean response of male librarians’ digital literacy level is 22.39 while that of female is 22.27. From the cut-off point of 20, it can be seen that both male and female librarians’ digital literacy level is to a large extent. This finding is not in line with the findings of Iwhiwhu and Eyekpegha (2009) who decried inadequate training in the digital environment and poor

procedure was followed. For a respondent who ticked VLE (4 points) for all the items his score will be 4 x 8 which is 32, while LE is 3 x 8 items which is 24, and for SE is equal to 16, while VSE is equal to 8. The average for the four-point scale is $80/4 = 20$. Thus a mean of 20 and above will stand for a large extent, while below 20 will stand for small extent. This was the basis for answering research question 2.

ICT skill of librarians. kolo and Okiy (2012) also lamented that library staff are not digitally literate and as such hampers the growth of libraries. From a personal observation, majority of the library staff are undergoing training in ICTs today given the fact that they are not literate in the digital environment. It is on this premise that this finding is rejected.

Challenges to the Digital Literacy of Librarians

The librarians were asked; what are the likely challenges that could hinder the digital literacy level of librarians?

SA=Strongly agree, A=Agree, D=disagree and SD=Strongly disagree

university libraries in Delta State are inadequacy of fund to acquire digital literacy [83 strongly agreed and 67 agreed], lack of basic computing skills [98 strongly agreed and 77 agreed] and lack of Lack of digital literacy courses in Library and Information Science curriculum in Nigerian Library

Table 6: Challenges

Challenges	SA	A	D	SD
Inadequacy of fund to acquire digital literacy	83	67	54	21
		65	80	30
Lack of awareness of digitized library services	50	77	40	10
Lack of basic computing skills	98	18	10	87
Lack of digital literacy courses in Library and Information Science curriculum in Nigerian Library Schools	110	75	15	15
Lack of in-house training on digitization	120			
Lack of professional tutors/experts to impart literacy skills	38	29	88	70
		65	23	22
Lackadaisical attitude of head librarian towards the training and retraining of library staff	115	90	5	10
Unavailability of digitized library services	120			

Table 6 above shows that some of the challenges to librarian’s digital literacy in

Schools. Tella and Mutula (2008); Iwhiwhu and Eyekpegaha (2009), and Ikolo and Okiy (2012) in their study reveals that digitization

projects in Nigerian university libraries are faced with the challenge of poor staff literacy skills in computing and the unavailability of fund for digitization project and staff training. Further findings from this study shows that lack of in-house training on digitization [120 strongly agreed and 75 agreed], lackadaisical attitude of head librarian towards the training and retraining of library staff [115 strongly agreed and 65

agreed], and unavailability of digitized library services [120 strongly agreed and 90 agreed] are all challenges to librarian’s digital literacy level. The study of Oghiagbephan and Asamaigo (2010) reveal that for a digital library to succeed, there is the need to train and retrain current library personnel, and also for the head librarian to possess positive attitude towards digitization project.

Testing Hypothesis was used to analyze the difference in the To probe further whether the difference in means to know if they were statistically the observed means is due to chance, t-test significant. The results are presented below.

Table 7: Difference in the digital literacy level of male and female librarians in university libraries in Delta State

Paired Samples Test

	Paired Differences			95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error	Lower	Upper			
Male	.122	4.062	.410	-.692	.937	.298	97	.766
Female								

The findings from table 7 above show that the t-calculated of 0.297 is less than the table ratio of 0.766. This implies that the null hypothesis is accepted. Therefore, male and female librarians do not statistically differ in their meanlevel of digital literacy. This

finding do not match with those of Ikolo and Okiy (2012) who pointss out that females are less skilled than males in terms of digital literacy. However, this finding is accepted by the researcher on the ground that today’s librarianship has paved the way for library staff in general to acquire

relevant skills that could boost their productivity. Hence both male and female librarians struggle to ensure that they meet up with the current requirement to sustain their jobs.

Conclusion and Recommendations

There is no doubt that the existence of digital libraries in Nigeria is championed by the availability of digitally literate librarians who are expected to be vast in librarianship and ICTs use. However, the digital environ in Nigeria is critically plagued by the low level of digital literacy among the citizenry. For librarians to be secluded form this “box”, it is expected that they embrace the 21st Century and propel libraries in the country to international standards. This study investigates the digital literacy level of librarians and finds that inasmuch as librarians are currently undergoing training in ICTs, they are mainly unskilled in the digital environment. In conclusion, digitized library services in Delta State are hindered by the digital literacy level of the librarians as most of them does not have digital literacy skills. These librarians are deficient in the use of digital cameras, scanners, digital imaging software, and OPAC.

Inasmuch as some of them could use printers, Smart phone, computers and internet applications, they are generally digitally illiterate. Lack of digital literacy courses in Library and Information Science, curriculum in Nigerian Library Schools, inadequacy of fund, lack of basic computing skills, unavailability of digital library services, and lackadaisical attitude of head librarian towards the training and retraining of library staff, accounts for the low level of digital literacy among librarians. Where these challenges abound, there is the possibility of hindering the growth of

digitized university library services in Delta State. Based on these, it is recommended that:

- i. Digital literacy should be made compulsory as part of the requirements for qualification as university librarian, this will help the librarian possess positive attitude towards digitized university library services to promote the dive for digitization of the library routines in Delta State.
- ii. Librarians or library staff should be given training and retraining so as to create staff competency in a digital environment.
- iii. Digital literacy courses in library schools should take about 50% of the entire library and information science curricula.
- iv. There is the need for librarians to be exposed to the digital devices that could be used in libraries and for them to be trained on how to use them.
- v. The librarians should subject themselves to training in basic computing so as to get them prepared for training in digital literacy.

References

- Asuquo, E.N., & Onasanya, S.A. (2006). Gender differences and students and student’s achievement in computer technology instruction. *West Africa Journal of Educational Research*,9 (1 & 2),1-8

- Connell University (2014). Digital literacy. Retrieved from <http://digitalliteracy.connell.edu/>
- Fabunmi, B.A., Paris, M.& Fabunmi, M. (2011). Digitization of library resources: challenges and implications for policy and planning. *International Journal of African & African American Studies*, 5(2). 23- 36. Retrieved from citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.532.7523&rep=rep1
- Gurumurthy, A. (2004). Gender and ICTs: An overview report. Retrieved from www.bridge.ids.ac.uk/sites/bridge.ids.ac.uk/files/reports/CEP-ICTs-OR.doc
- Ikolo, V.E. (2010). Gender digital divide and national ICT policies in Africa. In Adomi E.E., (Ed.) *Handbook of research in library and information science*. London: IGI Publications
- Ikolo, V.E. & Okiy, R.B. (2012). Gender differences in computer Literacy among Clinical Medical Students in selected Southern Nigerian Universities. Retrieved from: <http://www.webpages.uidaho.edu/~mbolin/ikolo-okiy.htm>
- Islam, S. & Islam, M (2007). Use of ICT in Libraries: An Empirical Study of Selected Libraries in Bangladesh. *Library Philosophy and Practice (e-journal)*. 143.1-10 Retrieved from <http://digitalcommons.unl.edu/libphil>
- pract/143<https://www.ugc.ac.in/mrp/paper/MRP-MAJOR-LIBR-2013-26219-PAPER.pdf>
- Iwhiwhu, B.E.,&Eyekpegba, E.O. (2009). Digitization of Nigerian university libraries: From technology challenge to effective information delivery, *The Electronic Library*, 27(3),529 – 536
- Munusamy, K., & Ismail, (2009). Influence of gender role on Internet usage pattern at home among academics. *Journal of International Social Research*, 2(9),309-318.
- Obuh, A.O. (2009). Use of electronic resources by postgraduate students of the Department of Library and Information Science of Delta State University, Abraka, Nigeria. *Library Philosophy and Practice*. Retrieved from: <http://www.webpages.uidaho.edu/~mbolin/obuh-alex.htm>
- Oghiagbephan, A.D., & Asamigo, E.E. (2010, April 18- 22). Gender equality and ICT policies: The challenges for Nigeria. A paper presented at the International Conference on Gender Equality and Sustainable Development in the Attainment of the Millennium Development Goals. University of Benin, Benin Edo State.
- Oguagua, J.C. & Emerole J.N. (2005). Digitization of federal university libraries in Nigeria: A doyen development with daunting difficulties. *Journal of Research in National Development*, 3 (2),4-10 retrieved from <https://www.ajol>

info/index.php/jorind/article/view/42299

Wikipedia (2014). Digital literacy. Retrieved from http://en.wikipedia.org/wiki/Digital_literacy

Ogunsola, L.A. & Okusaga, T.O. (2008). Establishing virtual libraries in African universities: problems and prospects. *Ozean Journal of Social Sciences*, 1(1), 43-52. Retrieved from http://ozelacademy.com/OJSS_v1n1_5.pdf

Rosenberg, D. (2005). Towards the digital library: findings of an investigation to establish the current status of university libraries in Africa. Oxford: International network for the availability of scientific publications. In Haliso, Y. (2011) Factors affecting information and communication technologies use by academic librarians in Southwestern Nigeria. Retrieved from http://finclarticles.com/fpfarticles/fmi_7005fis_2011_April/ai_n57533436/pg_2/

Sorensen, K. H. (2002) 'Love, Duty and the S-curve: An Overview of Some Current Literature on Gender and ICT', in K. H. Sørensen & J. Stewart (eds), *Digital Divides and Inclusion Measures. A Review of Literature and Statistical Trends on Gender and ICT*, STS Report 59 (Trondheim: NTNU, Centre for Technology and Society): 1-36.

Tella, A., & Mutula, S.M. (2008). Gender difference in computer literacy among undergraduate students at the University of Botswana: implication for library use. *Malaysian Journal of Library & Information Science*, 13(1), 59-76.