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Digital Literacy Skills as Determinants of Library Use by Undergraduate Students of Private Universities in Oyo State, Nigeria

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Abstract

This study examined digital literacy skills as determinants of library usage among undergraduates in two Private Universities in Oyo State, Nigeria. The study adopted a descriptive and non-experimental survey research design which involved the use of questionnaire as the instrument for data collection. The targeted population of the study comprised of 8020 users who are undergraduates of the Ajayi Crowther University Library and Lead City University Library, while 481 respondents formed the sample using the sample size at confidence level of 95% and P=0.5. The data was collected via questionnaire and was analysed using Statistical Package for the Social Sciences (SPSS). The First, and second research questions were analysed using descriptive statistics, while the research hypothesis was analysed using correlation analysis. Findings of the study revealed that most of the undergraduates can use technology competently to interpret and understand digital content. Secondly, majority of the undergraduates frequently update their digital skills to decrease their inability of accessing online materials which helps in increasing their digital knowledge. Thirdly, current and relevant information resources provided by the library encouraged the undergraduates to use the library. The study established that digital literacy skills had significant effect on library usage among undergraduates of private Universities in Oyo State. The study recommended that undergraduates should consider the university library as a place where they can actively engage themselves and enhance their knowledge as this would turn them into active Library users.

Key words: Digital Literacy, Library Usage, Undergraduates, Private
         Universities.
Word count*:* 250

INTRODUCTION

Today's library is a powerhouse where information is stored, generated, and transferred to fulfill users' needs of which university undergraduates are core users. The objective of the university library is to support the academic programmes of the university by providing relevant information to respond to the ever-increasing information demands of users which comprise the students and the academic staff of the university. Constant evaluation of the university library usage is the surest way of ensuring that desired information is being obtained to ascertain whether the library is meeting its expected goals so that adjustments could be made where necessary for effective information service delivery. This service delivery has made the library to be termed as a treasure house of knowledge saddled with the responsibility of providing accessibility to varieties of information resources both physically and virtually to improve the information literacy skills as well as digital literacy skills of students. This is one of the principal tenets of the University library which is to support all forms of literacy from basic to digital literacy

Today's digital world has everything we do being shaped by digital interventions noted by Nagashetti and Kenchakkanavar (2015), as technological advancements have taken over the globe. As a result of the advent of Information Communications Technology (ICT), the ways through which we communicate, interact, read or write are being overtaken by technology. Human beings with capacity to adapt to different environmental conditions, have developed and acquired certain tactics or skills, to fit in, and function in this digital era. The acquired skills or tactics is termed as digital literacy according to Yasemin (2018). Although there have been various arguments on what digital literacy should be, Oriogu, Subair, Oriogu-Ogbuiyi, and Ogbuiyi (2017) referred to it as a set of skills that enable individuals to operate effectively in information retrieval task in technology-oriented environments. Certain skills have been identified as needed in order to be competent in a digital age and one of such is the digital literacy skills. A digital literate person is an individual who can evaluate and use information critically from relevant and authoritative sources online.

Traditional use of library by university undergraduates have changed owing to the new environment and working culture brought about by the infusion of digital technology into every strata of students' lives. Students are now looking for an opportunity to read contents in electronic mode as teaching and learning is migrating to this domain- if not fully but partially which has even been aggravated due to the era of new normal brought about by the Covid-19

pandemic. This reduces the burden over the need to keep staying inside the library, even as students can even read contents anywhere due to the ubiquitous nature of these technologies which is not constraint by time, means and location (Bakare, 2018).

Considering this era of technological developments, various forms of resources have been distinctively transformed from printed books and journals to various electronic formats. Similarly, today's libraries have a common challenge to broaden their resources and transform their collections from print resources to electronic format so as to promote the digital literacy skills of 21st century library clienteles whose vast majority are digital millennial. For pursuit of academic excellence, students need both printed and online resource of the university to do exploit in their field of studies as it goes a long way in improving their information literacy skills. However, extant literatures revealed that students of this generation are more inclined to digital forms of information and prefer to get information through these means (Boakye, 2018; Iivari, Sharma & Ventä-Olkkonen, 2020), but majority of them lack the required digital literacy skills in accessing, exploiting and using the rich digital resources available in the library (Igbo, 2020). In the same vein, very few possess the required skills to using the digital collection for their varying degrees of information needs (Igbo & Imo, 2020). Similarly, experiences of different library professionals on the job overtime have shown that undergraduate students in Universities are busy with trivial things other than embarking on serious academic reading and making use of different library facilities which is meant to aid their academic productivity through the use of digital resources. While, literature has revealed that even with the availability of digital library, electronic resources and the physical resources (Books, Journals, Periodicals, Maps, Graphs, etc.), it has still been noticed that these resources are being underutilized by students (Ebenezer Martin-Yeboah & Diana Atuase, 2019). Anecdotal evidences have equally shown that a lesser percentage of undergraduate students use library facilities to improve their literacy skills. Hence there is a need to examine factors that motivate or determine library usage among university students. Whereas, previous studies in this area have concentrated on other aspects of literacy skills as determinants of library use, most did not deal with digital literacy skills. Hence, it is on this premise that this study systematically investigated the digital literacy skills as determinants of library use by undergraduates of private Universities, in Oyo state, Nigeria.

Research Objectives.

The main research objective of this study is to examine digital literacy skills as determinants of library use by undergraduate students of Private Universities in Oyo State, Nigeria. The specific objectives are to:

1. determine the levels of library usage among undergraduates of private universities in Oyo State, Nigeria?

2. investigate the level of digital literacy skills among the undergraduates of private universities in Oyo State?

3. examine the relationship between undergraduates' digital literacy skills and library usage among undergraduates of private universities in Oyo State.

Research Questions

1.. What are the levels of library usage among undergraduates of private universities in Oyo State, Nigeria?

2. What is the level of digital literacy skills among the undergraduates of private universities in Oyo State?

Hypothesis

1. There is no significant relationship between undergraduates' digital literacy skills and library usage among undergraduates of private universities in Oyo State.

Conceptual Review of Digital Literacy Skills and Library Use

The expectations of employers, parents and educators from graduating students of the university (about digital literacy) are changing. Therefore, most of the universities have embarked on compulsory computer literacy courses so that students can be well grounded within this space. This is corroborated by UNESCO which emphasized that in today's technological society, computer literacy is emphasized in every institution. In the same vein Hague and Williamson (2016) opined that digital literacy is a combination of technical procedural, cognitive and emotional-social skills, for example, using a computer involves procedural skills (file-management), and cognitive skills (intuitively reading the visual messages in graphic user interfaces). While others interpret it from a different perspective, for instance, American Library Association (2017) states that digital literacy involves the transition of text from being printed to a new form of literacy (digitally-mediated); it is having the features on interactivity and openness which when harnessed by undergraduate students rub off positively in their library usage and in essence on their academic productivity.

For undergraduates to enjoy the benefit provided by electronic database resources provided by the library, there is the need for a composite skill which is referred to as the digital literacy skills. These skills will help them to acquire information literacy skill, media literacy skill, and ICT literacy skills. Julien (2018) explained that skills required to use electronic database resources are higher than the one required for searching printed sources and that students need to master certain skills to be able to make exploit academically in addition to using the growing range of e-resources. Undergraduates therefore need skills such as, informational literacy skills, ICT literacy and media literacy skills for speedy retrieval of the exact information needed from electronic resources.

Paulina (2019) provides a more detailed definition of digital literacy as the ability to use digital technology and communications tools, and/or networks to access, manage, integrate, evaluate, create and communicate information in order to function in a knowledge society. In the same vein, Cyril (2017) states that digital literacy represents a person's ability to perform tasks effectively in a digital environment. Furthermore, to be digitally literate is the ability to make and share meaning in different modes and formats; to create, collaborate and communicate effectively and to understand how and when digital technologies can best be used to support these processes.

Fatiloro, Adesola, Hammed and Adewumi (2017) indicates that from a social, cultural and economic point of view libraries play a fundamental role in our society most especially in promoting digital literacy skills in this era of digital connectivity. They are the collectors and stewards of our heritage; organizers of the knowledge in the books they collect – adding value by cataloging, classifying and describing them; and, as public institutions, ensure equality of access for all citizens. Libraries take the knowledge of the past and present, and lay it down for the future for meaningful societal development. Syahputra (2016) argue that "libraries are not simply storehouses of books but provides proactive services to their users both from within the library's stock and a wide range of external sources." Some of the services according to them are inquiry services, bibliographic assistance, library instruction, inter-library loans, photocopying, and computer facilities. According to Julien (2018) university libraries play very important roles in supporting the university's academic work and students' academic productivity. Without a library, the university's academic work will not be successful, because it is the university library that provides services that helps in teaching, research and learning.

Empirical Studies of Digital Literacy Skills and Library Use

Ebenezer Martin-Yeboah and Diana Atuase (2019) studied the effects of information literacy skills on the use of e-library resources among students of the University of Ilorin, Kwara State, Nigeria and found that students are aware of the e-library resources but do not use them due to lack of necessary skills and the library does not have specific information literacy standard for her students and most of them do not use Information Technology (IT) in accessing information. In a similar study, Jeong-Bae (2017) opined that despite the high computer literacy level of undergraduate students there is need to make information literacy course mandatory on all students, send e-mail, newsletters and give out prizes as strategies of improving awareness of the electronic sources in order to increase usage of this resources.

Boakye (2013) studied the impact of information literacy skills on the use of e-library resources among tertiary institution students in AkwaIbom State Polytechnic (AKSP), AkwaIbom State University (AKSU) and University of Uyo (UNIUYO); and survey design was adopted for this research. The findings of this study showed a general low level use of the university libraries in Nigeria which confirms reports that library use for all of the academic library experiences was generally low, the study also revealed that most of the respondents lacked the necessary computer literacy skills in using e-library resources and other internet technologies which has affected the use of e-library resources. Finally, it was revealed that students make better grades when they use computers, e-library resources and other IT technologies when doing their assignments and researches thereby improving their academic performance.

Plockey (2017) conducted a survey on the use of electronic databases and electronic journals accessed through the web by the academic staff of Israeli universities. The findings showed that the most active users of electronic journals are the younger members of the teaching and research staff. Hisham and Abeer (2018) discussed an overview of innovative information literacy programmes at San Jose State University's King Library which served as models for future academic library information literacy programmes and also discussed the success, lessons learned and ongoing challenges of the freshman's information literacy programmes and present goals and objectives of the transfer and campus dormitory information literacy programmes.

Wichadee (2018) investigated Information Literacy among Undergraduate Students in Niger Delta University. The Research was carried out in the Faculty of Social Sciences, Niger Delta

University, Wilberforce Island, Amassoma and Bayelsa State, Nigeria to determine the undergraduate students' level of awareness of information sources available in the University, to know their level of digital literacy and to determine the different search strategies used by them. While Ogunbodede (2020) examined impact of information literacy skills on the use of e-library resources among tertiary institution students in Akwa Ibom State. The study revealed that the quality and volume of academic work is largely influenced by the knowledge and skills possessed in the use of e-library resources. It therefore concluded that students in tertiary institutions need to update their information literacy skills.

Mohammadi (2016) examined digital literacy and the implication on Nigerian digital library. The study aimed to bring to light the essence of digital literacy in digital libraries, consequence of not being digital literate, and ways libraries can promote digital literacy. The study employed qualitative approach as research design. The researcher used online journal articles, databases and looked at various studies carried on digital literacy, the importance, digital libraries, implication of digital literacy in libraries and ways libraries can promote digital literacies in their libraries with a focus on Nigeria and proffered solutions for tackling the menace of digital divide to digital libraries and to the society generally.

The empirical review from related literature showed that most of these studies did not deal with literacy skills and the few that examined the digital literacy were carried out in public institution's libraries, whereas this study examined digital literacy skills as determinant of library usage by undergraduates of private Universities in Oyo State.

METHODOLOGY

The study adopted a descriptive and non-experimental survey research design which involves the use of questionnaire as the instrument for research data collection. The early draft was circulated and piloted on selected students in the Precious Corner Stone University, Ibadan, and 10% of the total sample of the respondents was pilot tested. The Cronbach Alpha Value was tested at 0.92 and several modifications were made before the final version were distributed. The population of the study comprised of undergraduates of the Ajayi Crowther University Library and Lead City University Library, who were registered undergraduates totaling 3,900 users in Ajayi Crowther University, Oyo and 4,120 in Lead City University, Ibadan. The study employed Purposive sampling technique to select the sample size of the study, the reason for choosing purposive sampling is because it is a non-probability sampling

that select sample base on characteristics of the population and the objective of the study. This study adopted a formula used by Yamane for determining sample size

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size, N is the population size, and e is the level of precision. Assuming e = 0.05 and there are an estimated 8020 (3,900 and4, 120) registered users in Ajayi Crowther University library and Lead City University library.

$$n = \frac{8,020}{1 + 8,020(0.05)^2} = 481$$

Hence, sample sizes of 481 undergraduate from both Universities were selected for the study.

The study was conducted by means of a detailed closed-ended questionnaire in ascertaining whether digital literacy is a determinant of library usage. The data collected via the questionnaire was analyzed with the use of the Statistical Package for the Social Sciences (SPSS).The first and second research questions were analysed using descriptive statistics and simple percentages, while the hypothesis was tested using partial correlation analysis.

Discussion of Findings

Response Rate

Table 1 analyses the response rate of the administered questionnaire

Questionnaire	Respondent	Valid Percentage (%)
Returned	481	100%
Not Returned	Nil	Nil
Total	481	100%

Source: Field survey 2020

All the 481 questionnaires administered to undergraduates of the selected institutions were properly filled and returned. This gives a response of 100%.

Research Questions One

What are the levels of Library Usage among students of private Universities in Oyo State, Nigeria?

Tables 2: Levels of library usage among the undergraduates of private universities in Oyo State

S/N	ITEMS	Strongly Agree	Agree	Disagree	Strongly Disagree
1	The formal orientation on library resources had a positive effect on my library usage	*165(34.3)*	*150(31.2)*	144(29.9)	22(4.6)
2	I read in my University library on a daily basis	63(13.1)	166(34.5)	*210(43.7)*	*42(8.7)*

3	Library usage attracts rewards in my school	*125(26.0)*	*141(29.3)*	138(28.7)	77(16.0)
4	I usually use my University library electronic resources	82(17.0)	131(27.2)	*215(44.7)*	*53(11.0)*
5.	I use my University library only during the examination period.	71(14.8)	127(26.4)	*195(40.5)*	*88(18.3)*
6	I use Library mostly as a result of encouragement from my lecturers	87(18.1)	133(27.7)	*206(42.8)*	*55(11.4)*
7	We observe library period in my school time table	76(15.8)	91(18.9)	*202(42.0)*	*112(23.3)*
8	I use to visit library resources for my assignments	*139(28.9)*	*210(43.7)*	102(21.2)	30(6.2)
9	The attitude of the Library staff encourages me to use the library	*111(23.1)*	*165(34.3)*	164(34.1)	41(8.5)
10	I enjoy reading in the Library for its quietness	*163(33.9)*	*180(37.4)*	105(21.8)	33(6.9)
11	I use the library because its resources are easily accessible physically and electronically	*177(36.8)*	*157(32.6)*	126(26.2)	21(4.4)
12	I use library because it provides me with past question papers for my registered courses in the University	*93(19.3)*	*150(31.2)*	152(31.6)	86(17.9)
13	Current and relevant information resources provided by library encourage me to use library	*165(34.3)*	165(34.3)	126(26.2)	25(5.2)
14	What I use the library mainly to do is to have access to book loan	72(15.0)	144(29.9)	*181(37.6)*	*84(17.5)*

Figures in parentheses are in percentages (%)

Table 2 shows the item by item analysis used in soliciting the views of sampled undergraduates of private Universities in Oyo State in relation to their levels of library usage. Majority of the undergraduates showed their agreement for item one that the formal orientation on library resources had a positive effect on their library usage, also larger percentage of them agree that they visit library resources for their assignments. The implication of this is that majority of the respondents make use of the library one way or the other, which is reflected by their agreement to the actions specified by virtually all the 14 items under library usage. From the analysis above, it can be concluded that most of the respondents are conversant with the use of the library for both their scholarly work and other related ones. The study established that majority of the respondents make use of the Library. These findings shared the same view with the findings of Jeong-Bae (2017) which states that university undergraduates are conversant with the use of the Library for scholarly activities. The findings of Bakare (2018) also indicated that

majority (33%) of the students accessed these SMT Library Services right in their classrooms or lecture theaters, while the least in terms of access points of these services is Off-campus (3.7%). The most interesting revelation is that the point of accessibility of the SMT services were majorly (76.2%) within the library itself which was ranked third with (23.7%).

Research Questions Two

What is the level of Digital literacy skills among the undergraduates of private universities in Oyo State?

Table 3: Level of digital literacy among the undergraduates of private Universities in Oyo State

S/N	ITEMS	Strongly Agree	Agree	Disagree	Strongly Disagree
1	I can produce simple digital content (e.g. text, tables, images, audio files) in at least one format using digital tools	209(43.5)	264(54.9)	7(1.5)	1(0.2)
2	I can use technology competently to interpret and understand digital content.	202(42.0)	267(55.5)	8(1.7)	4(0.8)
3	I can make basic editing to digital content produced by others (e.g., adding and deleting).	176(36.6)	292(60.7)	11(2.3)	2(0.4)
4	I can use advanced functions of different tools (e.g. mail merge, merging documents of different formats, using advanced formulas, macros).	150(31.2)	308(64.0)	10(2.1)	6(1.2)
5.	I know how to use keywords commonly used in my discipline to search for information online	266(55.3)	204(42.5)	3(0.6)	1(0.2)
6	I can filter large numbers of search results quickly	157(32.6)	296(61.5)	17(3.5)	4(0.8)
7	I can easily scan or skim a web page to get to the key relevant information quickly	194(40.3)	266(54.6)	8(1.7)	6(1.2)
8	I frequently update my digital skills to decrease my inability of accessing online materials which helps in increasing my digital knowledge.	160(33.3)	297(61.7)	12(2.5)	5(1.0)
9	I can solve most of the more frequent problems that arise when using digital technologies.	167(34.7)	292(60.7)	12(2.5)	3(0.6)
10	I can assess the credibility of online resources such as web page, blog, wiki,	172(35.8)	285(59.3)	13(2.7)	4(0.8)

	video, podcast, academic journal articles seamlessly				

Figures in parentheses are in percentages (%)

Table 3 shows the item by item analysis of the ten items used in soliciting the views of sampled undergraduates of private universities in Oyo State in relation to their level of digital literacy. Majority of them strongly agreed that they can produce simple digital content (e.g. text, tables, images, audio files) in at least one format using digital tool, also a good number of them agreed that they can assess the credibility of online resources such as web page, blog, wiki, video, podcast, academic journal articles seamlessly; the respondents equally agreed that they are capable of performing the action described by the statements. The implication of this is that majority of the respondents are digitally literate to perform the actions specified by all the 10 items under digital literacy. From the analysis above, it can be concluded that most of the respondents can solve most of the more frequent problems that arise when using digital technologies. Findings of this study have been particularly revealing. In response to the research question two: What is the level of digital literacy among the students of private Universities in Oyo State, The study has been able to establish that majority of the respondents can use technology competently to interpret and understand digital content. Respondents indicated that they frequently update their digital skills to improve their inability to access online materials which helps in increasing their digital knowledge; this was supported with majority of the respondents who signified that they frequently update their digital skills. The study also found that majority of the respondents can assess the credibility of online resources such as web page, blog, wiki, video, podcast, academic journal articles seamlessly. These findings shared the same view with the findings of Tammy (2017) which concludes that Students' awareness and use of digital technologies and their views of the use of library

Test of Hypothesis

$H_{01:}$ There is no significant relationship between undergraduates' digital literacy skills and library usage among undergraduates of private Universities in Oyo State.

Table 4: Relationship between students' digital literacy skills and library usage among students of private Universities in Oyo State

Correlations		
	LIBRARY USAGE	**LEVEL OF DIGITAL LITERACY**

Spearman's rho	LIBRARYUSAGE	Correlation Coefficient	1.000	.244**
		Sig. (2-tailed)	.	.000
		N	481	481
	LEVELOFDIGITALLITERACY	Correlation Coefficient	.244**	1.000
		Sig. (2-tailed)	.000	.
		N	481	481

**. Correlation is significant at the 0.01 level (2-tailed).

Significant @ p<0.05, r is the Spearman's rho

The result in Table 4 shows that, there is a positive correlation between students' digital literacy skills and library usage among undergraduates of private universities in Oyo State. That the correlation coefficient for both variables (i.e. students' digital literacy skills and library usage) are positive, significant and moderately low (digital literacy skills & library usage= 0.244). This means that there is a statistical significant correlation between students' digital literacy skills and library usage. The implication of this is that as undergraduates' digital literacy skills increases, so is the library usage among undergraduates of private Universities in Oyo State.

Based on the results, it can be concluded as follows:

- Digital literacy and library usage have a statistically significant linear relationship ($p<$ .05).

- The direction of the relationship is positive (i.e., digital literacy and library usage are positively correlated), meaning that these variables tend to increase together (i.e., greater digital literacy is associated with greater library usage).

The study has been able to establish that there is a significant relationship between digital literacy skills and library usage i.e. the direction of the relationship is positive. These findings share the same view with the findings of Wolcott (2011) which concluded that greater digital literacy is associated with greater library usage.

CONCLUSION

Based on the findings of this study, it is concluded that there is high level of digital literacy among the students of private Universities in Oyo State. Also, there is a significant relationship between students' digital literacy skills and library usage among students of private Universities in Oyo State

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

i. Undergraduate students should consider the University library to be a place where they can actively engage themselves and enhance their knowledge as this would turn them into active library users.

ii. Library management should take cognizance of informational needs of undergraduate students as they have different reasons for visiting the university library.

iii. Adequate attention should be given to the provision of services such as book borrowing service, inter library loan service, weekend library service,

iv. Modern facilities and befitting services that would meet the needs and expectations of users should be provided by the senate and council of universities.

v. Universities should pursue aggressively the acquisition and provision of ICT and its resources for use.

vi. The training and re-training of the academic staff in internet literacy skills for teaching and research should be approached with greater zeal and commitment.

vii. Considering that most ICT and their accessories are electricity driven, there is need for improvement in the supply of electricity through national grid. This will help reduce the huge amount incurred in installation and maintenance of alternative sources of power which is a huge relief for universities.

Viii. There is a need for library or information service providers to render twenty-four hours daily service for their patrons because of the paradigm shift in the use of library and information services to meet the demand of digital age library users.

CONTRIBUTION TO KNOWELDGE

The findings of the study have contributed to a more comprehensive understanding of digital literacy as determinants of library usage. The empirical results showed that ICT is one of the most important motivations to reading for university students and that the provision of ICT will assist library to serve the user community satisfactorily since majority of the university undergraduates are digital millennials. The study contributed to knowledge by testing hypothesis and coming up with a model for the study which will assist researchers in further research and future endeavors. The study will assist institutions, organisations and service providers to improve on their library service delivery and products.

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