Use of Digital Literacy Skills for Electronic Information Search among Students of Higher Institutions of Kebbi State, Nigeria

SHEHU, Saidu CLN
KEBBI State Polytechnic, Dakingari
Department of Library and Information Science
07067691240/08091186556

Gambo Isah Diri
KEBBI State Polytechnic, Dakingari
Department of mathematics
08107357373

Abstract:- The focus of this paper is to explore the Use of digital literacy skills for electronic information search among students of higher institutions of Kebbi State, Nigeria Survey research design was adopted for the study. The area of the study was Kebbi State located in the North West Geopolitical Region of Nigeria. The population of the study comprised all the students of higher institutions in Kebbi State. Structured questionnaire was the instrument for data collection the instrument was validated by experts from the Institutions. Data collected was analyzed using mean scores. The major findings of the study includes that students of higher institutions of Kebbi State possess digital literacy skills, but they don't use it for their academic purpose, Based on the results of this paper, it is recommended that the leadership of the institutions suppose encourage the student to utilize digital literacy skills for their academic purposes, that the management of Institutions should establish a training center for digital literacy skill in Kebbi higher institutions that also the management of libraries in Kebbi State higher institutions should encouraged the students in using digital literacy skills for information search in their institutions information system and services centers.

I. INTRODUCTION

Within the electronic environment, information is accessed through the Internet, online databases for journal articles and books. Users also access specialized databases that cover specific subject areas such as health, medicine and biomedical research. Information available and accessible online is massive. To make maximum use of this information and to avoid frustration while looking for relevant information, the user should have search skills that include being familiar with search techniques. The use of search techniques and strategies aims at helping the user retrieve relevant and quality information. The development of information and communication technologies (ICT) has radically changed the entire information environment. ICT has led to a rapid increase in the amount of information (information explosion); Electronic information is managed and stored in various sources such as audiovisual media, CD-ROMs, online public access catalog (OPAC) and databases.

According to Ojeniyi (2016), the electronic search of information is a targeted process when collecting recorded information from practically different sources for a certain reason. For higher education students to access electronic information, there must be a presentation in the form of the query that the information system can interpret. He added that academic libraries are established to provide resources to cater for the information needs of the academic community. As such, they help in the process of education through provision of the needed information resources and services to ensure the desires for the information by the users of the academic environment.

Electronic Information search from databases, is based on the principles of Boolean method. It is a logical relationship between search terms, named after the English mathematician and logician George Boole Boolean logic is used to create search statements, where search terms are combined using logical operators in a specified syntax Boolean operators refine search results by expanding, narrowing, or excluding them. Generally, Boolean operators are OR, AND, NOT (AND NOT) Sometimes symbols are used to represent Boolean logical operators In some databases, the plus sign (+) is similar to the AND operator and the minus sign (-) is similar to the NOT operator The absence of signs is also important, since spaces between keywords are the default AND operator in many cases. Some databases provide a search model that allows users to select Boolean operators from a menu Usually logical operators are expressed in a substitution language rather than the operators themselves.

University students pursuing graduate studies in various fields (Osunade, Philips and Ojo 2007). Due to the high workload, students are usually looking for information from a variety of sources to support your educational efforts. Depending on the mode of study, the average student is expected to spend three to a maximum of six years at the university (Osunade, Philips and Ojo 2007). A student's academic achievements in this century is relatively dependent on their digital literacy to identify credible information on the internet and use it for their research. Information and communication technologies have penetrated all areas of human activity.

To use electronic information resources, students need a complex skill known as digital literacy. This skill will help them acquire information, media and ICT skills. All of these skills allow them to connect to library database resources. Digital skills are essential to build confidence in using electronic information in the library.

II. STATEMENT OF THE PROBLEM

Academic libraries should support the institution's mission by making information resources available in a variety of formats, including electronic format. With the sharing of electronic resources in universities, students need to be digitally literate just like digital skills allow students to remotely access the right information at the right time in the right place, give students the ability to search multiple files at once, etc., and also present many challenges as they are computerized and require digital content Skills and abilities to search, research and use. Shaibu and Mohammed (2017) found that Nigerian universities invest heavily in the acquisition of electronic resources, raising questions about the usage and user satisfaction with electronic resources in libraries.

However, it is observed by the researcher through a preliminary investigation that most of the higher institution students are not making effective utilization of electronic information resources available in higher institution of Kebbi State, Nigeria, despite the huge amount of investment made to acquire those information resources and this could be far from inadequate digital literacy skills amongst students. Uncertainty exists whether students in higher institution of Kebbi State possess digital literacy skills for electronic information search. Similarly, studies conducted by Olawaseye and Abraham (2013), revealed that practical uses of e-resources are not up to the worth in comparison to investments made in acquiring these resources.

They added that electronic resources are underused due to a lack of digital literacy; it also limits the ability to effectively search, locate, retrieve, and ethically use necessary information or scarce skills that might discourage enthusiasm for the use of electronic information resources. Base on this, the researchers declares that there is need to look in to the Use of digital literacy skills for electronic information search among students of higher institutions of Kebbi State, Nigeria. And its hope that this propose research study will add to the existing knowledge and create room for further research in the area.

III. OBJECTIVES OF THE STUDY

- To identify the type of digital literacy skills possess for electronic information search among Students of higher institutions in Kebbi State, Nigeria.
- To find out the purposes why the students of higher institutions utilize their digital literacy skills for electronic information search in Kebbi State, Nigeria
- To find out the extent to which digital literacy skills enhance student's electronic information search inhigher institutions of Kebbi State, Nigeria

IV. LITERATURE REVIEW

Digital literacy is more than just the technical ability to operate digital devices properly. It comprises of a variety of cognitive skills that are utilized in executing tasks in digital environments, such as surfing the Web, deciphering user interfaces and working with databases. Digital literacy has become a "survival skill" in the technological era in academic environment, a key that assists users to work intuitively in executing complex digital tasks. In recent years, extensive efforts have been made to describe and conceptualize the cognitive skills that users employ in digital environments (Borthwick and Hansen 2017). Under the umbrella of digital literacy, it ranges from basic awareness and training to develop informed citizens to increase consumer and user trust, to more sophisticated and complex creative and critical skills and outcomes.

Paul Gilster's 1997 book 'Digital Literacy' highlight the need of digital literacy skills: We know that the nature of literacy has changed in the digital age, but unfortunately, we do not have decades to catch up to this change. Digital Literacy skills are those capabilities that mean an individual is fit for living, learning and working in a digital society. Digital literacy is about being able to make use of technologies to participate in and contribute to modern social, cultural, political and economic life. It covers understanding the impact of new technologies on society, understanding and being able to manage digital identities appropriately and being able to locate, organize, understand, utilize, evaluate, analyze and present digital information. Digital literacy involves critically engaging with technology and developing a social awareness of how a number of factors including commercial agendas and cultural understandings can shape the ways in which technology is used to convey information and meaning. It means being able to communicate and represent knowledge in different contexts and to different audiences (for example, in visual, audio or textual modes).

McDonald (2015) also urged librarians to embrace technology actively and play a dominant role in their social, academic and professional fields. Communication technology has changed the academic library from manual to automation and digital database access. It exposed the professionals' academic and technological competency, training in skills development and guidance on electronic information search amongst undergraduate students is important. The technological innovation has linked the student's academic progress with digital skills, browsing databases, effective utilization of resources and running software.

Additionally, the digital literacy skills and competencies required standard training to integrate students' IT skills into the overall performance. In this connection, the role of librarians in integrating digital literacy and providing instruction on information literacy has always remained exemplary. Researchers explored that the retarded library and information science (LIS) curriculum, inadequate IT infrastructure, and training are some of the potential challenges for university libraries

(Malik and Ameen, 2017). In this century, digital media have improved the pedagogical capabilities of faculty and students searching skills for lasting academic performance (Zhao et al., 2019).

It is however noticed that some studies indicate high usage of search engine like google, others reported low level database usage due to lack of digital literacy skills and competence. Otulugba and Mamudu (2014) investigated electronic library utilization among students of Tai-Solarin University of Education, Ogun State, Nigeria, seminar presentation indicated that 81.9% used ejournals, 76.8% used e-magazine/newspapers while CD ROMs and e-databases were the least consulted with 51.7% and 41.1% respectively. On the respondents' perception and their purposeof usage; it showed that 55.5% used it for article search, 64.1% search for e-books and 46.6% search for research topic. Among the challenges faced by the respondents include difficulty to identify relevant database to meet their information needs (51%), lack of access to e-resources (61%), persistent power failure (64.7%) and limited bandwidth (54.3%). Equally, Okello-Obura and Magara (2008) investigated electronic information access and utilization at the East African School of Library and Information Science, Makerere University, Uganda using qualitative method. Out of the 250 targeted students, 190 responded, giving a response rate of 76%. The study revealed that users derived a lot of benefits from electronic resources, gaining access to a wider range of information and improved academic performance as a result of access to quality information. Similarly, in their research on the use of electronic information resources by Mbarara University Library students, Ikoja-Odongo and Okello-Obura (2013) using the same methodology found that 63% of respondents used Internet search engines, while only 13.5% , 11.6%, 7.5% and 5.6% used e-books, CD-ROMs, e-journals and scientific databases, respectively.The survey showed that students find the Internet search engine easier than other electronic resources in the library.

Salman et.al (2020) investigated the factors that affect acquisition of digital literacy skills by 278 undergraduates in Fountain University library, Osogbo and the extent digital skills affect their use of EIR the study which adopted social survey research design, used questionnaire as the main instrument of data collection. Results showed that 90 (32.4%) admitted that lack of digital skills hinders their use of EIR. Majority 161 (57.9%) and 121 (43.5%) of the respondents identified low internet bandwidth and volatility of online information respectively as a major challenge to their acquisition of digital proficiencies.

V. METHODOLOGY

Quantitative Research Method will be adopted for purpose of this research; data collected would also be analyzed using quantitative techniques. Usually Through the use of structured and standard questionnaire.

Survey research design will use for this study. A survey is a systematic method of collecting data from a population of interest; it tends to be quantitative in nature and aims to collect information from a sample of the population such that the results are representative of the population within a certain degree of error. According to (Aron, 1997) the purpose of a survey is to collect quantitative information, usually through the use of a structured and standardized questionnaire.

According to Nwana, (2002) "if a population is in many hundreds, one needs a sample size of 20%, but if a population is in few thousands, one needs a sample size of 10%. Bernard (2012) supported this by asserting that if a population of a study is less than two hundred (200) the entire population should be used for the study.

Therefore, for the purpose of this study the researcher uses 10% of the population of students out of 28,590and the researcher administers 2,861 questionnaires to the targeted population. During the process of administering the instrument, the researcher with the assistants administer the questionnaire hand to hand, and face to face to each respondent.

S/N	NAME OF INSTITUTION	Population of the student
1	Federal University of Kebbi State, Kalgo	4,757
2	Kebbi State University of science and technology	6,719
3	Waziri Umaru Federal Polytechnic, Birnin Kebbi	8,674
4	Kebbi State Polytechnic, Dakin-Gari	179
5	Adamu Augie College of Education, Argungu.	5876
6	School of Nursing and midwifery, Birnin Kebbi	740
7	School of Health Technology, Jega	1645
	Total	28,590

Table 1: Population of the Study

Source: Administrative office of the Institutions

S/N	INSTITUTION	Population of the student	Student sample 10%
1	Federal University of Kebbi State, Kalgo	4,757	476
2	Kebbi State University of science and technology	6,719	672
3	Waziri Umaru Federal Polytechnic, Birnin Kebbi	8,674	867
4	Kebbi State Polytechnic, Dakin-Gari	179	18
5	Adamu Augie College of Education, Argungu.	5876	588
6	School of Nursing and midwifery, Birnin Kebbi	740	74
7	School of Health Technology, Jega	1645	165
	Total	28,590	2,861

Table 2: Sample of the Study

S/N	INSTITUTION	Population of the student	Student sample 10%	No. of Questionnaire Returned
1	Federal University of Kebbi State, Kalgo	4,757	476	465
2	Kebbi State University of science and technology	6,719	672	650
3	Waziri Umaru Federal Polytechnic, Birnin Kebbi	8,674	867	798
4	Kebbi State Polytechnic, Dakin-Gari	179	18	18
5	Adamu Augie College of Education, Argungu.	5876	588	530
6	School of Nursing and midwifery, Birnin Kebbi	740	74	72
7	School of Health Technology, Jega	1645	165	164
	Total	28,590	2,861	2,697

Table 3: Respond rate

S/N	Type	Population	Percentage%
1	Critical thinking skills	45.8	1.7%
2	Ability to manipulate digital tools	269.7	10%
3	Ability to cut- and paste	331.7	12.3%
4	Ability copy/delete	556.4	21%
5	Ability assembly knowledge from diverse sources	377.6	14%
6	Online searching skills	836.1	31%
7	Problem solving skills	132.2	4.9%
8	Ability to find, evaluate, and communicate information	94.4	3.5%
9	Communication and online publishing skills	43.2	1.6%
	Total	2,687	100%

Table 4: Type of digital literacy skills

Table 4 above analyzed the types of digital literacy skills possess for electronic information search among Students of higher institution in Kebbi State, Nigeria. The data presented in the above table shows that **31%** of the respondents possess Online searching skills digital literacy skill,**21% possess the** ability to copy/delete, **14%** of the respondents possess Ability to assembly knowledge from diverse sources. **12.3**% have Ability to cut- and paste, **10%** of the respondent possess an ability to manipulate digital tools, 4.5% of the respondents have Problem solving skills, **3.5%** possess the ability to find, evaluate, and communicate information, **1.5%** have Communication and online publishing skills and **1.7%** of the respondents possess Critical thinking skills.

This is in line with (Ukachi, 2010).Digital Literacy has to do with the ability to understand information and perform tasks digitally, in a digital environment. It includes skills and knowledge crucial to the daily life within multiple industries, professions and careers in this 21st century, such as:

- using a computer to find, manipulate, and communicate information
- being able to identify information in different types of formats and media (such as films, databases, the internet and so on)
- to critically evaluate information and media sources for accuracy, reliability and credibility.
- using digital tools and information ethically and safely

S/N	PURPOSE	Frequency	Percentage %
1	For library database search	188.1	7%
2	For Problem solving	349.3	13%
3	To manipulate digital tools	483.7	18%
4	To assemble knowledge from diverse sources	725.5	27%
5	For entertainment	241.8	9%
6	searching for job opportunities	134.4	5%
7	For communication	295.6	11%
8	For chatting	268.7	10%
	Total	2,687	100%

Table 5: Purpose of Utilizing Digital Literacy Skills

Table 5 above analyzed the Purpose of Utilizing Digital Literacy Skills. 27.2% of the respondent have it that they use it to assemble knowledge from diverse sources, 18% of the respondent says that the purpose of utilizing digital literary skills is to manipulate digital tools, 13% of the respondents have that it is use for Problem solving, 11% of the respondents say that it being use for communication, 10% of the respondents use it for chatting , 7% of the respondents use it for entertainment, 7% of the respondents use it for library database search, 5% of the respondents use it in searching for job opportunities.

S/N	Digital Literacy Skills	M.F		F		L.F		N		U. D	
	Critical thinking skills	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
1		**846.7**	**31.5%**	1160.8	43.2%	**268.7**	**10%**	**99.4**	**3.7%**	**311.7**	11.6%
2	Ability to manipulate digital tools	**524**	**19.5%**	**470.2**	**17.5%**	**994.2**	**37%**	**107.5**	**4%**	**591.1**	**22%**
3	Ability to cut- and paste	**1263**	**47%**	**980.8**	**36.5%**	**134.4**	**5%**	**26.9**	**1%**	**268.7**	**10%**
4	Ability copy/delete	**231.1**	**8.6%**	**368.1**	**13.7%**	**1222.6**	**45.5%**	**220,3**	**8.2%**	**644.9**	**24%**
5	Ability assembly knowledge from diverse sources	**456.8**	**17%**	**1236**	**46%**	**322.4**	**12%**	**644.9**	**24%**	**26.9**	**1%**
6	Online searching skills	**386.9**	**14.4%**	**483.7**	**18%**	**1236**	**46%**	**384.2**	**14.3%**	**196.2**	**7.3%**
7	Problem solving skills	**357.4**	**13.3%**	**859.8**	**32%**	**833**	**31%**	**451.4**	**16.8%**	**185.4**	**6.9%**
8	Ability to find, evaluate, communicate information	**295.6**	**11%**	**1451**	**54%**	**456.8**	**17%**	**403.1**	**15%**	**80.6**	**3%**
9	Communication and online publishing skills	**260.6**	**9.7%**	**85.9**	**3.2%**	**260.6**	9.7%	**886.7**	33%	1193	44.4%

Table 6: Extent at which digital literacy skills and competencies enhance students of higher institutions electronic information search

Keynote: M. F= Most frequently, F= frequently, L. F= Less frequently, N=Never, U.D = UN decided

Table 6. above analyzed the Extent at which digital literacy skills and competencies enhance students of higher institutions electronic information search and 54% 0f the respondents say it enhance their electronic information search frequently in the Ability to find, evaluate, communicate information. 46% of the respondent have it that the rate at which it enhances their electronic information search in Online searching skills is less frequent , 47% of the respondent have it that it enhances their electronic information search most frequently in Ability to cut- and paste, 46.2% of the respondents have the way it enhances their electronic information search is less frequent in the Ability to copy and delete, 44.4% have it that they get it Un decided in Communication and online publishing skills, 37% of the respondents have it that it is less frequent in the Ability to manipulate digital tools.

VI. FINDINGS OF THE STUDY

The research finding also confirm questions and other related issues of contention. The findings are as follows:
- Most of the digital literacy skills possess for electronic information search are Online searching skills, Ability to cut- and paste, and Ability to assembly knowledge from diverse sources.
- The purposes why the students of higher institutions'utilize digital literacy skills are for Ability to assembly knowledge from diverse sources, manipulate digital tools and for problem solving.
- It was discovered that the extent at which digital literacy skills and competencies enhance students of higher institutions' electronic information search in the ability to find, evaluate, communicate information.

VII. CONCLUSION

From the summary of the findings, the study concludes that Usage of Digital literacy skills by the students in searching information to some degree is significant because it will help the students to locate information resource that are of sacrosanct to their field of studies. As such using digital literacy skills by the student should be compulsory for their academic purpose, so that students will achieve better results in the learning process.

VIII. RECOMMENDATIONS

The study provides the following recommendations:

- The study recommended that the management of the institutions should encourage the student to utilize digital literacy skills for their academic purposes
- It is recommended that the management of the institution should provide a training center for digital literacy skill in Kebbi State higher institutions'
- It is also recommended that the management of libraries in Kebbi State should encouraged in using digital literacy skills for information search in our higher institutions information system and services centers.

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