

Student-librarians' Perception and Utilization of Scholarly Electronic Resources

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Abstract

The perception of students about electronic resources is very paramount as it is a determinant to its utilization or lack of utilization by the students. This study is an investigation on student-librarians' perception and utilization of electronic resources. The study employed a descriptive survey design with a sampled population of 100 student-librarians derived from four universities in Southeast, Nigeria offering Library and Information Science while it was guided by four research questions formulated in line with the research objectives. The main instrument used to gather data for this study is a 4-point Likert scale structured questionnaire that had items on student-librarians' level of awareness and extent of utilization of e-resources as well as challenges in the utilization of e-resources by the students.. The data collected were analyzed using frequency and percentages. The outcome of this study brings to fore the importance of the awareness of e-resources to enhancing research and innovation among student-librarians. The result further revealed that despite efforts by academic institutions to make scholarly e-resources available, they seem to be under-utilized by student-librarians and by extension students. The study among others recommended more practical training for student-librarians as well as librarians so as to familiarize them with several scholarly e-resources and their functionalities as it will assist student-librarians, stakeholders and policy makers comprehend how to harness human capital by ensuring quality education through the optimal utilization of scholarly e-resources for teaching, research and innovation as well as need for academic libraries to carry out from time-to-time, publicity of their services that they know are beneficial to the student as well as current awareness services with a view to alerting the students of the availability of new e-resources.

Keywords: Perception, student-librarians, utilization, scholarly e-resources, academic library

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1.0 Introduction

The perception of students about scholarly electronic resources is very paramount as it is a determinant to its utilization or lack of utilization by the students. The use of e-resources especially the scholarly type offers quality academic resources which contribute greatly to teaching, research and innovation. Electronic resources (or e-resources) according to Heng (2020) are materials in digital format accessible electronically. As expressed by Renwick (2005), the increase in the use of information and communication technology and online information facilitated the birth of e-resources and this has increased tremendously in popularity and utilization. The utilization of e-resources presently is playing prominent role in academic enrichment in a digital era, as modern libraries are now blending both the electronic and traditional sources of information and some cases have gone

visual in order to serve their clientele better in a dynamic world. The digital resources available in a library play prominent role in facilitating access to the required information to the user in an expediency manner. Further, one needs not go to the library to make use of print formats as the digital resources can be made use of by any user through online access via networks or authentication methods at any time comfortably. Presently, web-based electronic resources have become most popular tools in academic research.

In a world ruled by information and communication technologies (ICTs), information which is so to speak one of the most expensive factors of production and national development has increased over the last couple of years. As reported by Layman and Varian (2003), books (print) increased by 83% in the United States of America (USA) from 1999 to 2002 while online scholarly journals virtually doubled from 1991 to 2001. Recent studies for instance, Levine-Clark (2015) and Wang & Bai (2016) affirmed to this while Nicholas, et al (2008), was particularistic as they noted that e-book penetration is very strong. All the same, being faced with a lot of competition from other major sources of information like, the internet combined with demands from patrons, the average library budget spent on electronic materials or resources has increased greatly almost four-fold from an estimated 4% between 1992 and 1993 to 13% in 1999 to 2000 (Association of Research Librarians, 2005).

The truth is that academic libraries all over the world are spending a lot providing scholarly e-resources and ensuring their accessibility to support teaching and research. According to Vakkari (2008), government and academic institutions invest large sums of money to furnish students and researchers with information resources required for their work with the hope that enhanced access to scholarly e-resources will enhance learning and boost research output. There is not gain stating the fact that a wide range of databases such as journal databases, e-books, reference databases, among others are increasingly accessible to the use of various electronic devices such as mobile phones, tablets and laptops. Electronic resources therefore, are one of the emerging environment in libraries and Information communication in the competitive service. E-resources usually consist of e-books, e-Journals, articles, newspaper, thesis, dissertation, databases and CD-ROMs, which are likely to be the alternative to the print media. Emerald, Ebsco, Scopus are some of the examples of online databases

As posited by Garcia-Febo, et al (2017), academic and research libraries in all part of the world are essential in providing information access to academic communities. The availability of these electronic resources and their easy accessibility no doubt are suppose to be encouragement to students to utilize the scholarly e-resources available as to keeping abreast with current information and research which is capable of inspiring new ideas as well as enhancing their quality of work. The familiarity and use of electronic information resources in the libraries by students for an enhanced learning, research and innovation rapid development is very imperative thus the need for this study aimed at establishing student-librarians perception and extent of utilization of scholarly e-resources

1.1. Statement of the problem

In spite of the huge importance of scholarly e-resources to research and innovation and government and academic institutions' effort at making scholarly e-resources available through subscriptions and direct purchases, these resources seem to be under-utilized by students as a result of their perception as they prefer to utilize internet search engine for their scholarly materials (Dlamini, 2014, Saunders, 2011; Emmanuel & Jegede, 2011). However, the birth of ICT has made it imperative for academic librarians in most part of the globe to invest in different types of e-resources (considering the fact that information seems to be growing in geometrical proportion and information as contained in print seems not to be enough as to satisfy the information needs of students) to meet the needs of students and other patrons. It is therefore an aberration noting that despite these huge spending by academic institutions subscribing for these scholarly e-resources, students still do not optimally utilize these resources for research and learning.

Stating the obvious, several researches have been conducted on the importance of e-resources and its use as a preferred means of retrieving information by students and academics but most of them have been either focused on postgraduate students, academics or both and only few have focused on student-librarians. Perhaps, it may be on the assumption that student-librarians are supposed to know everything about information through their training in academic institutions and by so being knowledgeable and comfortable with e-resources usage. Besides, there is paucity of literature on the perception and use of scholarly e-resources and their functionality.

It is in search for an answer to the 'why; and to establishing if truly student-librarians are knowledgeable and comfortable with the utilization of e-resources that this study becomes imperative as to establishing their degree of perception as well as the extent of their utilization of e-resources in learning and research.

1.2. Research Objectives

The specific objective of this study is to ascertain student-librarians' degree of perception and utilization of scholarly e-resources. Other objectives include:

1. To establish the student-librarians perception of scholarly e-resources,
2. To know the extent to which student-librarians use the scholarly e-resources
3. To ascertain the extent student-librarians utilize the social media
4. To identify challenges faced by student-librarians in the utilization of e-resources

1.3. Research Questions

The study was guided the following research questions:

1. What perception do student-librarians have about scholarly e-resources?
2. To what extent do student-librarians utilize the scholarly e-resources?
3. What is the extent at which student-librarians use social media?
4. What are the challenges faced by student-librarians in the utilization of e-resources?

2. 0. Literature review

2.1. Perception

The term *perception* which is a noun and has its etymology from the Latin word 'perceptio' meaning comprehension is according to Wikipedia (2008) the process of attaining awareness or understanding of sensory information. While the *Collins Essential English Dictionary* (2006), describes it as insight or intuition and way of viewing. The Merriam-Webster (n.d.a) lists these definitions: "1 a: a result of observation; b: a mental image; 2. *obsolete*: consciousness; 3 a: awareness of the elements of environment through physical sensation; b: physical sensation interpreted in the light of experience; 4 a: quick, acute, and intuitive cognition appreciation; b: a capacity for comprehension." The Merriam-Webster Online Thesaurus (2009) adds this: "1. the ability to understand inner qualities or relationships; 2. the knowledge gained from the process of coming to know or understand something." Synonyms in *Roget's II: The New Thesaurus* (1995) include awareness, cognizance, consciousness, sense, concept, conception, idea, image, notion, and thought. Other related terms are: attention, cognition, heuristic, information, intelligence, mental model, and understanding (Wikipedia, 2008).

According to Lumen (n.d), Perception refers to the way sensory information is organized, interpreted, and consciously experienced. Perception involves both bottom-up and top-down processing. Bottom-up processing refers to the fact that perceptions are built from sensory input. On the other hand, how we interpret those sensations is influenced by our available knowledge, our experiences, and our thoughts. This is called top-down processing. Cherry (2020) explained that Perception is the sensory experience of the world. It involves both recognizing environmental stimuli and actions in response to these stimuli. Through the perceptual process, we gain information about the properties and elements of the environment that are critical to our survival. Perception not only creates our experience of the world around us; it allows us to act within our environment. Perception is a uniquely individualized experience. One can only draw from what is known to oneself just as earlier explained in the introductory part of this study as in case of The Blind Men and the Elephant. The conclusion that can be drawn is that perception is a multifaceted concept that is as complex as the human mind itself.

2.2. Theoretical and empirical framework

The perception of users about scholarly electronic resources is a very important determinant of their utilization or non-utilization. The perception may be in respect of its usefulness in satisfying the information needs or in the sense of the ease of utilization of these information resources. Students have shown that many students perceived e-resources to be complex and not easy to use (Adetunla, 2016; Oyedele, 2014). And this may as a result of inadequate search skills required to retrieve information from these databases as most of them require certain information retrieval skills to retrieve relevant information. Adetunla (2016) in a research on the perceived ease and use of electronic information resources by undergraduate students of private universities in Nigeria discovered that the students perceived the e-resources as being very complex, not flexible and not easy to use making it unsuitable for meeting their information needs. He added that availability of e-resources in universities does not determine the use of these resources but the perception on the

ease of use or how user-friendly the system is determine the usage of e-resources. Complexity and lack of basic understanding of e-resources and academic databases are some of the major problems associated with students information seeking process in the library (Oyadeyi, 2014). The deduction is that perception of scholarly e-resources is a key factor to their utilization by students.

On the other hand, there have been studies on the use of e-resources in higher institutions globally. Recent researches points to the fact that ICT has a lot of effects on the way students seek information with tremendous increase in the use of the internet and electronic resources (Mogase & Kalama, 2015). Some of these studies have developed models and theoretical frameworks while other examined factors that affect students' use of e-resources. Furthermore, recent studies in several discipline such as medicine (Ahmed & Reyee, 2017; Anandhalli & Shakuntal, 2015), business (Sharma & Sharma, 2013), Law (Amusa & Atinmo, 2016), library and information science (Krakowska, 2013; Akpojotor, 2016) among others suggest that young people of today think, learn, socialize, shape identity and seek information differently in this digital age, the era of web 2.0 and participatory culture (Dresang & Koh, 2009). Rogers (2001) studied faculty and graduate students' use of electronic journals, printed journals and electronic databases at Ohio State University (OSU) during the years 1998-2000. The findings of the surveys showed that since 1998 there has been a significant progress in the acceptance and usage of electronic journals at OSU. In 1998, only 200 e-journals were available, while in 2000, the number of available e-journals increased to more than 3,000. In 1998, 19% of the respondents used e-journals at least once a week, while in 2000, the percentage increased to 36%. At the same time, the least weekly usage of printed journals decreased from 45% in 1998 to 34% in 2000.

In a research conducted by Shakeel and Vinayagamoorthy (2013) on students of Business School of Universities and colleges located in Academic City in Dubai, it was discovered that internet and e-resources have become an easy source of accessing information. They further revealed that as technology has gained an ever foothold in the domain of business education, the digital resources appeared to have a significant impact on the information seeking behaviour of the majority of the library users. As noted by Emmanuel and Jegede (2011) and Dlamini (2014), students have preference for free internet search engine for information retrieval as in their research carried out among MBA students in a Nigerian university discovered that internet is the most consulted source of information as the MBA students prefer to search for information on the internet before considering any other source of information putting the level of significance of internet source to the students at 99.9%.

Ge (2010) conducted a research in the Tennessee State University in the US where he explored the degree to which specific e-resources are significant to the social sciences and humanities researchers and he discovered that e-information resources played an essential role in the researchers' information seeking pursuit. Among the 8 types of e-information technologies rated, the web

databases and e-journals ranked 1st, 2nd and 3rd in the order they are mentioned while online catalog and e-mails took the 4th and 5th positions respectively.

According to Dlamini (2014), the case of independence on the internet should be due to the fact that it is easy to log on to search engines an input key terms in search of any information. In a study conducted in South Africa on information behavior of Generation Y students in the University of the Western Cape Town by Gardiner and Eng (2005), it was revealed that the students' main source of information is the internet as they believe that it satisfies both academic and non-academic information needs. Other related results are that of Saunder, (2011) and Naude (2008) while that of Komolafe-Opadeji (2011) discovered that students have regular access to the internet and also preferred using resources from Wikipedia, Google and some selected online databases such as EBSCO Host, JSTOR, Questia, HINARI and High Beam.

In a study of library and information students (LIS) in Croatia Tanackovic, Lacovic and Stanarevic (2012) found out that the most prominent method adopted by LIS students for finding information sources was searching the internet for information followed by the use of library catalog and databases. Togia and Torobili (2014) in their research on information seeking behavior of LIS students in Greece discovered the heavy use of the internet by majority of the students which confirms the well documented growing dependence of students on the public search engines or internet sites which are usually, the Google.

On the challenges facing utilization of e-resources, most studies in developing counties (Talla et-al, 2017; Okello-Obura, 2010; Adetunla, 2016 etc) recorded low usage of scholarly e-resources and attributed it to factors like inadequate networked computer among other factors. Igun (2005) identified the challenges faced by the libraries and information centre in Africa in the establishment of electronic publishing. Apart from the information source that can be obtained through the internet and downloaded online, the actual acquisition of electronic books is still not possible. Dadzie (2005) attributed the low usage of the scholarly e-resources to lack of awareness and information about the existence of those resources. Makgahiela and Bopape (2016) in a study on the use of e-information resources for academic research by postgraduate students in Nigeria found out that despite the awareness of e-resources by students, they are rarely used due to lack of information searching skills, complexity and lack of basic understanding of e-resources and academic databases. Akporhonor and Akpojotor (2016) also explored the challenges confronting postgraduate library and information students in the use of e-resources in Southern-Nigeria and found that some of the challenges faced by the students are poor internet connectivity, epileptic power supply; information overload, high cost of access, download delay and difficulties in accessing some websites.

3.0. Methodology

The study employed a descriptive survey design with a sampled population of 100 student-librarians (40 male and 60 female) derived from three hundred levels students of four universities in Southeast,

Nigeria; Abia State University, Uturu (ABSU), Imo State University, Owerri (IMSU), Nnamdi Azikiwe University, Awka (NAU) and University of Nigeria, Nsukka (UNN) with each university producing 25 respondents offering Library and Information Science while the study was guided by four research questions formulated in line with the research objectives. The main instrument used to gather data for this study is a 4-point Likert scale structured questionnaire that had items on student-librarians' level of awareness and extent of utilization of e-resources as well as challenges in the utilization of e-resources by the students as well as interview. The data collected were analyzed using frequency and percentages.

4.0. Presentation and Analysis of Data

Data collected are presented and analyzed using frequencies and simple percentages

Table 1: Student-librarians perception of scholarly electronic resources

S/No	Item	SA		A		DA		SDA	
		N	%	N	%	N	%	N	%
1	Very complex to use	30	60	-	-	-	-	20	40
2	Require special skill	43	86	-	-	-	-	7	14
3	Is time consuming	36	72	-	-	10	20	4	8
4	Not flexible	50	100	-	-	-	-	-	-
5	Some system not user friendly	50	100	-	-	-	-	-	-

The above table 1, displays data in respect of student-librarians' perception of scholarly e-resources. The data reveals that students' perception of these resources is in the negative which they attributed to system not being user-friendly (100%), the databases not flexible (100%). Other factors were that they are very complex (60%) therefore require special skills (86%) and that it is time consuming (72%). All the same, 40% of the respondents do not believe that the utilization of scholarly is complex

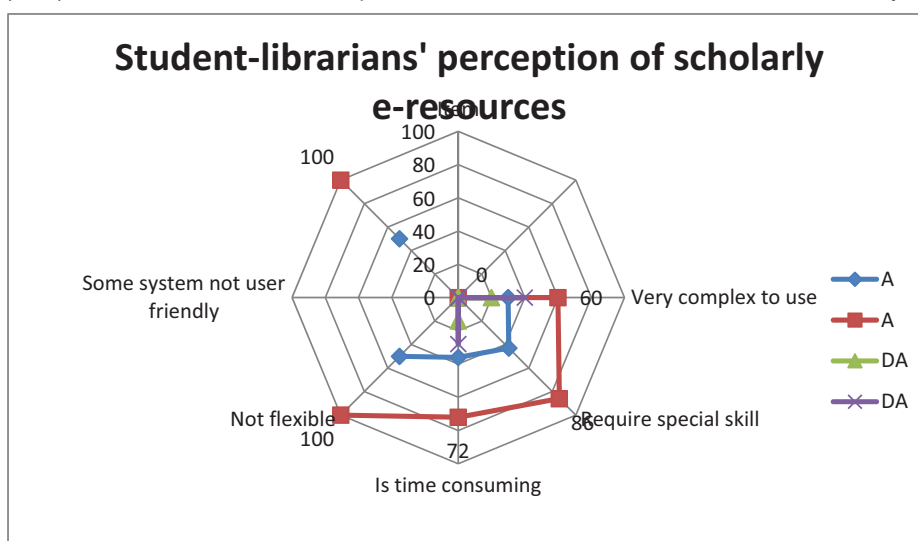


Figure 1: Graphical representation of student-librarians perception os scholarly e-resources

Key: A=Agreed; DA=disagreed

The figure above gives a clearer picture of the degree of student-librarians' perception of scholarly e-resources. The graphic representation is a corroboration of the data analyzed as displayed in table 1.

Table 2: Extent of utilization of e-resources by student-librarians

S/No	Items	VHU		HU		FU		NU	
		F	%	F	%	F	%	F	%
1	Subscribed Databases	12	12	6	6	20	20	62	62
2	DVD/CD-rom	10	10	17	17	11	11	72	72
3	e-books	13	13	34	34	27	27	26	26
4	e-journals	9	9	45	45	24	24	22	22
5	Internet free search engines (Google etc)	100	100	-	-	-	-	-	-
6	e-newspapers	10	10	-	-	-	-	90	90
7	e-articles	37	37	13	-	20	-	30	30
8	e-theses/e-dissertations	-	-	-	-	-	-	100	100

Key: VHU=Very Highly Utilized; HU=Highly Utilized; FU=Fairly Utilized; NU=Not Utilized

The data in table 2 on the extent of utilization of e-resources by student-librarians show that the 100 respondents representing 100% use internet free search engines when seeking for information in a very high extent. Other e-resources in use in VHE and HE include; e-journal 54%, e-articles 50%, e-books 47% and subscribed school databases 18% while the 100 respondents or 100% indicated Very low extent in the use of e-theses/e-dissertations also, e-newspapers had a very low extent of utilization as the indication stands at 90% . The data further revealed that 18 of the 100 respondents or 18% fully utilize their school subscribed databases while a total of 82% or 82 respondents indicated that the use is at LE or VLE an indication of underutilization of the databases as e-resources.

Table 3: Extent of utilization of social media by student-librarians

S/No	Item	VHU		HU		FU		NU	
		F	%	F	%	F	%	F	%
1	Whatsapp	100	100	-	-	-	-	-	-
2	Facebook	100	100	-	-	-	-	-	-
3	Istagram	61	61	-	-	-	-	39	19
4	Twitter	-	-	-	-	-	=	100	100
5	LinkedIn	5	5	-	-	-	-	95	95

Key: VHU=Very highly utilized; HU=Highly utilized; FU=Fairly utilized; NU=Not utilized

On the use of social media by student-librarians, the data in table 3 show that the use of whatsapp and facebook were in 100% as the 100 respondents indicated that the usage were at a very high extent while 61 respondents indicated that the utilization of Istagram was to a very high extent. On the other hand, student-librarians based on the data do not utilize Twitter as all the respondents or 100% indicated their non-usage of it. The data collected was further affirmed by some of the students

in an interview in which they affirmed their total usage of facebook and whatsapp confirming that they use whatsapp attachment to share useful academic information as a group. .the data also show that only 5 of the respondents or 5% utilizes LinkedIn while the remaining 95% does ot.

Tables 4: challenges of utilizing scholarly e-resources by student-librarians

S/No	Item	SA		A		DA		SDA	
		F	%	F	%	F	%	F	%
1	Lack of awareness creation	68	68	11	11	-	-	21	21
2	Slow speed/ connectivity/PCs & Others	77	77	10	10	10	10	3	3
3	Epileptic power supply	100	100	-	-	-	-	--	
4	It takes too long to view/download web pages	87	87	13	13	-	-	-	-
5	Overload of information on the internet	45	45	20	30	16	16	19	19
6	Lack of knowledge / training	21	21	47	47	22	22	10	10
7	High cost of access	55	55	23	23	10	10	12	12
8	Lack information searching skills	43	43	20	20	21	21	16	16
9	Lack of basic understanding of e-resources and academic databases.	84	84	7	7	4	4	5	5

Key: SA=Strongly agreed; A=Agreed; DA=Disagreed; SDA=Strongly disagreed

As shown in table 4, over 60 % of the respondents agreed to all the items listed as the challenges of student-librarians in the utilization of scholarly e-resources. The data indicate that the challenges facing the student-librarians in the utilization of scholarly e-resources include: lack of awareness creation 79%; slow speed/ connectivity/PCs 87%; epileptic power supply 100%

It takes too long to view/download web pages 100%; overload of information on the internet 65%, lack of knowledge/training 68%, high cost of access 78%, lack information searching skills 63%, lack of basic understanding of e-resources and academic databases, 91% and staff attitude 79%.

5.0. Discussion of findings

The outcome of this study as shown in table 1, reveals that student-librarians have poor perception of scholarly electronic resources which they attributed to the complex nature of their utilization, requirement of special skills unlike the free internet search that does not require any special skill, the time consuming factor, not being flexible when compare to the Google search engine and other online search engines and non-user friendly nature of some of the systems. The outcome of this study affirmed to the assertion that students perceived e-resources to be complex and not easy to use (Adetunla, 2016; Oyedeji, 2014). And this may be as a result of inadequate search skills required to

retrieve information from these databases as most of them require certain information retrieval skills to retrieve relevant information they explained and Adetunla (2016) who in a research on the perceived ease and use of electronic information resources by undergraduate students of private universities in Nigeria discovered that the students perceived the e-resources as being very complex, not flexible and not easy to use making it unsuitable for meeting their information needs.

On the extent of utilization of e-resources by student-librarians (see table 2), it was discovered that the 100 respondents representing 100% use internet free search engines when seeking for information in a very high extent this is in line with Komolafe-Opadeji (2011) discovering that students have regular access to the internet and also preferred using resources from Wikipedia, Google same as Togia and Torobili (2014) who in their research on information seeking behavior of LIS students in Greece discovered the heavy use of the internet by majority of the students which confirms the well documented growing dependence of students on the public search engines or internet sites which are usually, the Google. The data further revealed that 18 of the 100 respondents or 18% fully utilize their school subscribed databases. An indication of underutilization of university libraries subscribed databases. This outcome is in conformity with the assertion that in spite of government and academic institutions' effort at making scholarly e-resources available through subscriptions and direct purchases, these resources seem to be under-utilized by students as they prefer to utilize internet search engine for their scholarly materials (Dlamini, 2014, Saunders, 2011; Emmanuel & Jegede, 2011).

It was further discovered that student-librarians use social media to a very high extent more so, whatsapp and facebook as this was confirmed by some the student-librarians when interviewed. They explained whatsapp is a better, easy and fast e-resource to share documents and discuss academic matters as a group and personal chatting. This discovering affirms to the assertion of Krakowska (2013) and Akpojotor, (2016) that young people of today think, learn, socialize, shape identity and seek information differently in this digital age, the era of web 2.0 and participatory culture.

The study also discovered some challenges facing student-librarians' utilization of scholarly e-resources to include; lack of awareness creation; slow speed/ connectivity and inadequate PCs; Epileptic power supply; It takes too long to view/download web pages; overload of information on the internet; Lack of knowledge / training; High cost of access; students lack information searching skills, Lack of basic understanding of e-resources and academic databases and staff attitude. This finding agrees with Makgahiela and Bopape (2016) who in a study on the use e-information resources for academic research by postgraduate students in Nigeria found out that despite the awareness of e-resources by students, they are rarely used due to lack of information searching skills, complexity and lack of basic understanding of e-resources and academic databases and Akporhonor & Akpojotor (2016) who explored the challenges confronting postgraduate library and information students in the use of e-resources in Southern-Nigeria and found that some of the challenges faced by the students

are poor internet connectivity, epileptic power supply; information overload, high cost of access, download delay and difficulties in accessing some websites.

5.1. Conclusion and recommendations

Despite the notable accrued benefits and huge amount of money expended in the acquisition and subscription of e-resources, the outcome of this study has shown that scholarly e-resources are underutilized by student librarians. The assertion that student-librarians are trained to be future information managers does not all that make them fully aware or skilled in the utilization of scholarly e-resources. Some of the challenges as identified are related to the perception that these scholarly e-resources are complex to utilize which negates the findings of some studies. The obvious is that the availability of scholarly e-resources with the assumption of adequate internet connectivity does not guarantee the optimal utilization of these e-resources by student-librarians as a result of the already built mindset and lack of skills to retrieve needed information from the subscribed databases.

The dependence and existence of information on search engines like google.com and related free information retrieval search engines have adversely affected the utilization of e-resources available on subscribed databases for student-librarians. It is true that the use of search engines usually requires less effort to retrieve information but the implication is that it increases the rate of plagiarism among students (Lanzilotti, et al, 2006) and this may lead to low quality research work by student-librarians. It is in view of the above factors and more that the under listed recommendations are proffered.

- Librarians especially those in academic libraries and library schools should as a matter of necessity and need effectively address the information needs of student-librarians as future information managers as to understanding the type of information sought, the valued information and factors that influence how they search and obtain information they use. In other words, the academic libraries have to evolve more scientific methods to developing a standard collection of e-resources along with print documents assessing the requirements of the student-librarians.
- Student librarians should be exposed to more practical training on the utilization of e-resources so as to get themselves acquainted with the modus operandi of these databases. The era of teaching student-librarians theoretically without application should be frowned at and discontinued in all library schools. In other words, library schools regulating bodies should only grant accreditations to only schools that have the practical facilities to train student-librarians.
- Head of library schools and academic libraries management should make the orientation of newly admitted student-librarians mandatory during which, they will be exposed and acquainted with all the available subscribed databases and essence of their utilization by student-librarians throughout their duration in the school.
- System librarians manning the academic libraries databases should be sponsored for regular capacity training in the form of workshops, conferences, seminar and other professional courses

that are commensurate with latest trends in databases management as to be skilled enough to handle students' enquiries. This is imperative because in Nigeria for instance, many system librarians are by mere paper qualifications and not by practice as many of them were taught theoretically with little or no knowledge of the practical aspect of databases management and this no doubt is affecting the utilization of the databases of libraries with these crops of system librarians.

- On the attitude of staff, it has remained a nightmare to many organisations in Nigeria to be precise and the academic library has had her fair share. To this end, the staff should be meant to understand that they are social workers and their attitude to users can make or mar the entire library. The imperative is that staff working in the library should be trained on public relations and basic principles of human management while management should encourage students to report erring staff by providing complaint boxes that will be kept at strategic places within the library.
- In the words of Dadzie (2005), the university management should acquire for student-librarians and by extension all students who could not afford one, laptops and make a flexible payment plan for them. With this and good connectivity, most of them could access the databases from any part of the university thereby creating space, saving the time of the students and avoiding clustering of students in the e-library.
- The problem of epileptic power supply should be tackled headlong as the era of depending on public hydropower source of electricity supply should not be heard of in our institutions of her learning with the availability of solar-powered electricity. So, our universities should embrace it and have them installed on campuses for an uninterrupted power supply.
- There is also the need for academic libraries to carry out from time-to-time, publicity of their services that they know are beneficial to the student as well as current awareness services with a view to alerting the students of the availability of new e-resources as to enhancing teaching, research and innovation.

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