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Utilization of Electronic Resources for Teaching and Research among Lecturers in University of Nigeria, Nsukka

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Abstract

There is an increasing need for utilization of electronic resources for teaching and research by lecturers in institutions of higher learning. A study in this direction is not only necessary but timely given the volume of information from e-resources. Descriptive survey research design was adopted for the study. A multi stage sampling technique was adopted and a sample of three hundred and sixty lecturers was selected for the study. The data was collected using Structured Questionnaire. Replacement sampling was adopted for non-response until the required sample size is achieved. The data were analyzed using descriptive statistics. The findings showed that the most utilized is e-journal (45%); followed by e-books (39.72%). The most utilized search engines were Google (50%) and yahoo (32.22%). The major challenges in the utilization of e-resources within the institution includes, coping with too much information (46.76%) and restriction of access to some resources (28.89%). It was recommended among other things that there is need for the University of Nigeria Nsukka management to organize workshops, seminars and lectures to train the lecturer on how to use the various search engines.

Introduction

The academic roles of the university lecturers according to National Policy on Education (2004) are geared towards achieving the university's goals and objectives. They include teaching, research, dissemination of existing and new information, pursuit of service to the community and being a store house of knowledge. Lecturers are expected to teach the students, assist them in developing the skills for conducting research and publish original articles. They carry out research and disseminate outcomes as well as propagate new innovations to the society. Kamla (2011) noted that they are adept scholars, knowledgeable in their subject areas with personality attributes that promote rapport with students; they organize and deliver well prepared lectures, they are humane and give out handouts and extra reading materials, fair and actively engage students in the learning processes. According to Madu (2012) lecturers are evaluated for promotion every three to four years based on their research output especially in the form of publications made in referred journals and patents. In this way, they generate knowledge and information classified and packaged into different mediums for onward dissemination.

To carry out this responsibility, lecturers rely on information resources. In this modern time, the information resources are not restricted to the ones in physical format but is complemented by electronic resources which according to Sharma, Singh, and Sharma (2011) have placed themselves at the top priority in academic and research institutions. Electronic resources (ER) or electronic information resources (EIR) according to Dadzie (2005) are invaluable research tools that complement the print-based resources in a traditional library setting. It is information stored in a medium, which requires an electronic device to read its content (Pathak and Das, 2000). According to Aina (2004), e-resources is information medium in electronic formats. Shim, McClure and Bertot (2001) termed it as that information that users access electronically via a computing network. Sabouri, Shamsaii, Sinaki and Aboueye (2010) noted that they are invaluable research tools which complement print-based resources in any traditional library.

Contextually, electronic resources are all the information bearing materials that are in electronic format. It could be processed or stored on various types of media, including magnetic (RAM, hard drive, diskettes, tapes) and optical (CD-ROM, DVD) media. The information can be made accessible either through portable media or online through internet. Hence, the internet has become an invaluable tool for teaching and research and through it search engines have become the most important tools in locating this information. Search engine is an internet facility that assists information seekers to find required information on the ever-growing internet.

According to Salako and Tihamiyu (2007), search engines is a set of computer programmes that search for web pages on the internet, index the pages in a database, and make the database available for searching by information seekers through an appropriate user interface at its website. Nwokedi (2007) described it as a special programme that takes the information an internet user entered and search for websites in the internet that contain that information and retrieve it for the internet user. Some search engines include Google, Ask Jeeves and Yahoo among others.

The emergence of electronic resources has cut the barrier to valuable information resources which have been difficult to access especially by lecturers in the developing world. The importance of e-resources cannot be over emphasized. According to Dadzie (2005), importance of e-resources include access to information that would have been restricted to the user due to geographical boundaries or finances, access to current information and provision of extensive links to additional resources to what the user need. The features of electronic resources according to Tekale and Dalve (2012) include availability at any time; provision of hyperlinks;

huge information reservoirs; quick information; various search options; easy citations; ease in storage and flexibility.

Considering the importance of e-resources, it is expected that every lecturer should be using it for teaching and research. Lecturers are diverse group of people working in higher institutions of learning. Their diversity can make a difference from the standpoint of utilizing electronic resources for teaching and research. In a large part, the use of electronic resources is fundamentally building blocks for their development as well as improvement in their teaching capabilities which is premised on the assumption that different variety of information sources leads to a diversity of information necessary to meet the requirement for their work. According to Guzzo and Dickson (1996), diversity potentially compounds problems in group functioning leading to poor group performances. Milliken and Martins (1996) in their comprehensive diversity review concluded that diversity appears to be a double-edged sword, increasing the opportunity for creativity as well as the likelihood that group members will not function effectively. Therefore, this study sought to investigate utilization of electronic resources for teaching and research among lecturers in University of Nigeria, Nsukka. Specifically, the objectives of the study are to: identify the most utilized e-resources, the most frequently used search engine and the challenges/problems associated with the e-resources use among the lecturers.

Literature Review

The transition from print to electronic medium according to Tsakonas and Papatheodorou, (2006) resulted in a growth of electronic information, which has provided users with new tools and applications for information seeking and retrieval. Despite this, the findings of Ray and Day (1998) on students' attitude towards electronic resources revealed that 16% of the students noted that using electronic resources was time consuming, and 11% revealed that there was too much information retrieved coupled with limited access to computer terminals. Kaur (2000) surveyed the use of internet facility at the Guru Nanak University, Amritsar. The findings revealed that majority of the respondents faced the problem of slow Internet connectivity. In another study, Iroaganachi and Izuagbe (2018) identified the most utilized EIRs databases for research among academic staff in South-west Nigeria as Google scholar, Springer Link, Emerald and MyLibrary while De Groote, Shultz and Bleicic (2014) equally reported from their study that Google Scholar was the second most utilized EIRs search engine after MEDLINE among Health Sciences faculty.

In their study of the impact of electronic journals on scholarly information behaviour, Ollé and Borrego (2010) found that Google Scholar was regarded as an emerging important source of information for researchers due to its knowledge up-dating capability, explicit citations, relevance ranking and supersession of traditional indexing and abstracting databases among others. Studies on students' use of online information in Nigeria according to Gitta and Odongo, (2009); Annuobi, (2005); Adomi, Omodeko and Otolu (2004) showed that students' use of online resources was scanty. According to Jagboro (2003) on a study on the use of electronic resources in Obafemi Awolowo University, Ile-Ife, the use of the internet ranked high among the sources of research materials. Dadzie's (2005) study on the problems that users encounter with accessing electronic resources include inadequate PCs, lack of information about how to use electronic resources, and lack of time to acquire skills needed to use resources.

Annuobi (2005) investigated the information and technology facilities available in Nigerian University libraries, the use mode of them and the distribution of such facilities with reference to

the geographical location and the founding body of university. The study revealed that the percentage of libraries using Wide Area Networks, Fax machine, internet and online public access were below average and there was low level or lack of information technology facilities in third generation universities in Nigeria, while the first generation universities have highest commitment in this regard. The facilities were more prevalent in Northern than in Southern university libraries. The author concluded that there was gross absence of such facilities in state university libraries.

Adeniji (2014) revealed in a study of Availability and Utilization of Electronic Resources by Lecturers of Ibogun campus of the Olabisi Onabanjo University Ogun State, Nigeria, that majority of the respondents attested to the availability of internet/e-mail facility, e-journal, e-book, CD-ROM and e-Magazine. The major problems identified by the users were include, recurrent power outages followed by limited Bandwidth, insufficient funds, inability to download information, and Service Providers problems. Nwokedi, and Nwokedi, (2017) in their findings revealed that the major problem of the lecturers in this regard was coping with too much information retrieved. Iwighreghweta and Oyeniran (2013) revealed that the level of usage of e-resources was high. Majority of the respondents in the study area indicated that they use e-resources while few respondents agreed that they don't use it.

Ojeniyi and Adetimirin (2016) assessed ICT literacy skills and electronic information resources use by lecturers in two private universities in Oyo State, Nigeria, the result revealed that E-mail, Websites and E-Journals were the most available resources to lecturers of both universities. Internet Searching and Computer Appreciation, E-Mail and website were the most often used e-resources among lecturers of both universities while erratic power supply and poor internet connection were the major challenges encountered in the use of e-resources.

Salako and Tiamiyu (2007), in their studies titled use of search engines for research by postgraduate students of the University of Ibadan, Nigeria, discovered that Google and Yahoo were the most popular search engines by the students. Finholt and Brooks (1997) stated that in a JSTOR survey, it was found that faculty members from humanities, economics and social sciences use online catalogues, full-text electronic journal, databases and abstracting and indexing databases most frequently. Faculty members and other professionals in the field of science, math and medicine were early adopters of electronic journals and other digital library resources and remain the heaviest and most enthusiastic users (Voorbij 1999; Rowley 2001; Hiller 2002; Kidd 2002; Dillon and Hahn 2002). Finally, from the above review we could see the extent of work done in the area of electronic resources but none have been carried out on the utilization of electronic resources for teaching and research among lecturers in university of Nigeria, Nsukka. This is therefore, the gap which this study intends to fill.

Methodology

Research Design

The research design adopted for this study was descriptive survey research design. According to Burns and Grove (2003), descriptive research design provides picture of situation as it naturally happens. This type of research method is not simply amassing facts but includes proper analysis, interpretation, comparison, identification of trends and relationships.

Descriptive survey research design was used in this study because, first, it gathered quantifiable information that finds the situation of utilization of electronic resources for teaching and research among lecturers in university of Nigeria, Nsukka as it is now. Secondly, it increases our knowledge about what happens to lecturers as it relates to utilization of electronic resources for

teaching and research in the university. Thirdly, the quantifiable information gathered is conclusive in nature in the sense that statistical inference was drawn from the target population.

Area of the Study

The area of the study is university of Nigeria Nsukka (UNN). Nsukka is a town where the main university is located as well as one of the local government area in Enugu state, Nigeria. The university consists of Nsukka and Enugu campuses. The first is the main campus situated in Nsukka, while the second is situated in Enugu the state capital and is popularly called university of Nigeria Enugu campus (UNEC).

Justification of Area

The choice of area was informed by the fact that it is among the first indigenous university in Nigeria with many faculties, departments and lecturers. As a pioneer institution in Nigeria, it is important to investigate utilization of electronic resources for teaching and research among lecturers in UNN.

Population of the Study

The population comprises of all the teaching staff of the university who are also involved in research.

Sample and sampling Technique

The sample size of the study is three hundred and sixty lecturers. Replacement sample was conducted for non-response. The respondents were obtained from the primary source using multi stage sampling technique. In the first stage, nine faculties were randomly selected from the seventeen faculties; in the second stage, four departments were randomly selected from each selected faculty to make a total of thirty six departments. In the third and final stage, ten lecturers each were randomly selected from the thirty six departments through simple random sampling making it a total of three hundred and sixty lectures. This last stage involved the use of nominal roles from the departments and the random number table for proper randomization.

Instrument for data collection

The instrument used for data collection was questionnaire. The structured questionnaire containing 24 items was designed. The questionnaire was divided into three clusters. Cluster one sought for information on the e-resources mostly utilized by the respondents. Cluster two sought for information on the most frequently used search engine and cluster three sought for information on the challenges/problems associated with the e-resources use among the lecturers.

Validation of the Instrument:

A pilot study was conducted using twenty (20) lecturers from a sister University. This enabled the researcher to ascertain whether or not the questions asked would generate the required data. The results of the validation of the instrument revealed that all the questions in the questionnaire were able to generate required response. Hence, the instrument was able to measure the variables in this study.

Data Analysis and Discussions

Table 1: **The E-resources that are mostly utilized by the lecturers**

E-resources	Frequency	percentages (%)
Journals	162	45.00
Books	143	39.72
Newspapers	11	3.06
Magazines	8	2.20
Thesis	5	1.39
Clipping	4	1.11
Patents	2	0.56
Dictionaries	5	1.39
Databases	20	5.56
Total	360	100

Table one reveals e-resources frequently utilized by the respondents. The respondents choice on the e-resources frequently utilized in descending order are e-journals with 162(45%), e-book with 143(39%), e- newspaper with 11(3.06%) and magazine 8(2.20%). Others are Thesis 5(1.39%); clippings 4(1.11%); patents 2(0.56%); e-dictionary 5(1.39%) and databases 20(5.56%). Hence, e-journals, e-book and databases are the e-resources lecturers mostly utilized. This study corroborated the work of Finholt and Brooks (1997), Voorbij (1999); Rowley (2001); Hiller (2002); Kidd (2002); Dillon and Hahn (2002) that faculty members use full-text electronic journal and databases and were also early adopters of electronic journals and other digital library resources and remain the heaviest and most enthusiastic users.

Table 2: **Most frequently used search Engine**

Search engines	Frequency	Percentage (%)
Google	180	50.00
Yahoo	116	32.22
MSN	40	11.11
Netscape	11	3.06
AOL Search	10	2.78
Alta vista	0	0.00
Lycos	0	0.00
Ask jeeves	0	0.00
No response	3	0.83
Total	360	100.00

The most frequently used search engine according to Table 2 above is Google, Yahoo and MSN. Google is 50%, Yahoo, 32% and MSN is 11.11%. This is in accordance with Iroaganachi and Izuagbe (2018) who found Google scholar as the most utilized EIRs databases for research among academic staff in South-west Nigeria. The importance of Google in information searching could be what led Ollé and Borrego (2010) in their study to state that Google Scholar was regarded as an emerging important source of information for researchers due to its knowledge up-dating capability, explicit citations, relevance ranking and supersession of traditional indexing and abstracting databases. Ganzha, Paprzycki and Stadnik, (2010) equally noted that Google is working as primary information resource of internet users. This situation makes Google the most famous search engine for lecturers in University of Nigeria Nsukka. On the other hand, this corroborates the work of Salako and Tihamiyu (2007), who discovered that Google and Yahoo was the most popular search engines by the students. De Groote, Shultz and Blečić (2014) reported from their study that Google Scholar was the second most utilized EIRs search engine after MEDLINE among Health Sciences faculty.

Other search engines that were not used include Alta Vista, Lycos and Ask Jeeves while Netscape was 3.02% and AOL Search is 2.78%.

Table 3: Challenges/Problems associated with use of e-resources

Problems encountered	Frequency	Percentage (%)
Coping with too much information	168	46.78
Restriction of some information resources	104	28.89
Low speed internet connectivity	60	16.67
Formulating search terms	19	5.28
Out of date links	6	1.67
Finding relevant information	3	0.83
Total	360	100.00

Table 3 shows the challenges/problems militating against lecturers' use of e-resources. These include coping with too much information (46.78%), restriction of some information resources (28.89%), Low speed internet connectivity (16.67%), formulating search terms (5.28%), out of date links (1.67%), and finding relevant information (0.83%). It is understood from the study that coping with too much information, restriction of some information resources, low speed internet connectivity is the major challenges/problems associated with utilization of e-resources among lecturers in university of Nigeria Nsukka. This is in agreement with Nwokedi, and Nwokedi, (2017) and Ray and Day (1998) who found that the major problem of the respondent in their area is coping with too much information. Just as the Nwokedi, and Nwokedi, (2017) suggested, the lecturers may be using simple queries, retrieved lots of information, and also find it difficult to browse through many displayed web pages to get the information they needed. We will suggest like author above did, they should reduce their browsing workload by using sophisticated queries containing Boolean operators in the advanced search options provided by the search engines. This work equally corroborates Kaur (2000) and Ojeniyi and Adetimirin (2016) that slow internet connectivity is a major challenge.

Summary of Major Findings

1. The e-resources that were mostly utilized by the lecturers is e-journal followed closely by e-book
2. Goggle and Yahoo were most frequently used search engines among the lecturers. Alta vista, Lycos, and Ask jeeves were not used among the lecturers.
3. The major challenge/problem among the lecturers is coping with too much information on the internet.

Conclusion and Recommendations

This research investigated the utilization of electronic resources for teaching and research among lecturers in University of Nigeria, Nsukka. The findings of this investigation revealed that the use of e- resources for teaching and research is an established practice among the lecturers of the University. However, there is clear evidence that there are challenges drawing the lecturers back which need to be solved in order for the lectures to make more progress in their work. In order for the required improvement to be achieved, the following recommendations should be considered for implementation: first, the findings of the study shows that there is need for the University of Nigeria Nsukka management to organize workshops, seminars and lectures to train the lecturer on how to use the various search engines. Secondly, the lecturers should reduce their browsing workload by using sophisticated queries containing Boolean operators in the advanced search options provided by the search engines so that most of the lecturers will not restrict themselves to using Google and few other search engines.

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