

Full Length Research

Assessment of Online Usage Patterns of Elsevier Database amongst Academics of Environmental Sciences, University Of Jos

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This research investigated the awareness and usage patterns of subscribed Elsevier online database amongst the lecturers of University of Jos, using the lecturers in the faculty of Environmental Sciences as a focal population. The entire population of 95 lecturers in the faculty was adopted for the research. Descriptive survey was the research method adopted for this investigation. The instrument used for data collection was a questionnaire. Descriptive statistics such as frequency counts and percentages were used to analyze the data. The findings of this research revealed among others that very few (34.4%) of the lecturers were aware of the subscribed Elsevier online database; the major sources (67.7%) of awareness of the existence of the Elsevier database by the lecturers were through Conferences/Seminars/Workshops/Lectures; however, most (90.3%) of the lecturers that admitted awareness of the Elsevier online database, used it frequently. Nevertheless, majority (75.0%) of the lecturers claimed that their major challenge in using the database was unawareness of the existence of the Elsevier database. It was therefore, recommended among others that the university management should intensify sensitization of the lecturers on the awareness and use of the subscribed online database for teaching, research and learning in general. The research conclude that majority of the lecturers were ignorant of the subscribed Elsevier online database. Hence, there was low patronage of the Elsevier online database by the lecturers.

Key Words: Elsevier, Online, Database, Awareness, Use, University, Library, Jos.

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INTRODUCTION

The Internet is defined as a network of networks of millions of computers in the world, communicating and sharing information with each other, using the Transmission Control Protocol/Internet Protocol (TCP/IP). It is an information superhighway that provides unlimited access to a wealth of information on different topics contributed by people throughout the world (Griffith,

2002, and Scholastic, 2003). The Internet has broken down barriers of communication from anywhere in the world. It is fast, reliable and does not have restrictions on content or format; it also has a limitless range of facilities, which assist users to access almost infinite information on the net. It offers the opportunity for access to up-to-date research reports and knowledge globally. It has thus

become an important component of electronic services in academic institutions. Hence, the Internet has become an invaluable tool for learning, teaching and research.

A database is a collection of *information* that is organized so that it can easily be accessed, managed, and updated. In one view, databases can be classified according to types of content: bibliographic, full-text, numeric, and images. Database according to Ojedokun and Owolabi (2003) is a computer programme specifically designed for storing and organizing information. While Online database can be defined as computerized store for information, which is accessible through the host computer or across computer networks (Akporido, 2005). This implies that a user can search a database from remote computers or terminal interactive through a system called Online Information Retrieval System. The interaction in online searching is fully conversational, as the computer will respond immediately to questions or commands, which can still be followed by further enquiries. The implication is that online searching could be done by searching the net directly from a networked computer.

However, the cost of searching the net for information in Nigeria today is usually very expensive; still, one may not be able to access most of the important online academic materials (journals and books) he needs. This is because the materials are not free on the net. This development has discouraged so many academics from using the Internet. Therefore, providing Internet access / services is not enough to lure academics into using the Internet. Hence, apart from providing free Internet services, subscription to relevant Internet databases may go a long way in encouraging the lecturers / academics in using the Internet.

Electronic-Databases (e-databases) have become an established component of many academic libraries' collection. These databases often contain journal articles, or references to such articles, e-books, reference sources, conference papers and reports among others. There are various types

of these databases such as bibliographic, full-text, directory, numeric and multimedia.

E-databases are widely available and can be accessed from anywhere and by many users at the same time. It is therefore convenient to use. University libraries, therefore, spend large amounts of money on these resources to satisfy the teaching, learning and research needs of its faculty and

students. As universities spend substantial amount of money on subscription of these databases, it is only appropriate and economical that these databases are optimally utilized to contribute to the academic achievement of students and faculty and also to get value for money.

As part of the ongoing drive to reposition the University of Jos as a Center for Academic Excellence and

Learning in the 21st century, the University of Jos Management built computer Laboratories in all its faculties and provided free Internet services for both staff and students. Nevertheless, the university management also subscribed to so many relevant Internet databases for its staff and students. In addition, the university management has been organizing series of workshops, lectures and seminars for the lecturers in the faculties on the awareness, use and relevance of the subscribed Internet databases for teaching and research activities on campus. Of a particular interest is the "Elsevier" database which has just been added among the databases acquired by University of Jos to boost academic activities on campus. Through opinion sampled, many lecturers appeared not to be aware of the new database. Even after series of sensitization. It was on this background that this research was designed to assess the level of awareness and usage patterns of the Elsevier subscribed Internet database by the lecturers in the University, using the lecturers in the Faculty of Environmental Sciences, as a focal population.

OBJECTIVES OF THE STUDY

The objectives of this study can be summarized as follows:

1. To determine the lecturers' ability to use the internet;
2. To determine the lecturers' purpose of internet use;
3. To determine the lecturers' awareness of free internet services offered in the library's computer laboratory by the University's Management;
4. To assess the lecturers' awareness of the Elsevier (subscribed) online database;
5. To determine the lecturers' source(s) of awareness;
6. To find out the extent of use of the Elsevier online database by the lecturers;
7. To assess the lecturers' frequency of use of the Elsevier online database;
8. To identify the major challenges the lecturers encountered in the use of the online database and to proffer solutions on how to redeem the situation.

SIGNIFICANCE OF THE STUDY

The outcome of this study is significant, especially at a time when efforts are being made by the University Management to implement e-learning (electronic learning) in all sphere of academic activities on campus. The study is further significant as the findings of the study

will enable the University Management to evaluate the achievements of the objective for which a well equipped computer laboratory; free internet services and subscribed relevant online databases were provided in the university library to enhance academic activities in the university. Nevertheless, the findings of this investigation will also expose the level of awareness and use of Elsevier online database amongst the lecturers of the university, using the lecturers of faculty of Environmental Sciences as a focal population.

BACKGROUND INFORMATION ON THE FACULTY OF ENVIRONMENTAL SCIENCES, UNIVERSITY OF JOS

The Faculty of Environmental Sciences of the University of Jos came into being during the 1979/80 Academic Session with the three foundation departments of Architecture, Building and Geography and Planning. The Department of Geography and Planning, one of the oldest departments in the university, belonged to the Faculty of Natural Sciences up to the end of 1978/79 Session. The two other Departments, Architecture and Building, admitted their first batch of undergraduate students in the 1979/80 Academic Session. All the three departments currently offer undergraduate and postgraduate courses, leading to the B.Sc., M.Sc., M.Phil., and Ph.D. degrees. At inception, the faculty was planned so that over time, Departments of Estate Management, Urban and Regional Planning, Quantity Surveying and Land Surveying, as well as Advanced Cartography, would emerge but none of these have been realized, except the recent introduction of Estate Management and Urban and Regional Planning departments into the Faculty. The inability of the Faculty to embrace more departments as professed in its initial conception is due to inadequate staff, space, equipment and funding.

REVIEW OF RELATED LITERATURE

Many studies have been undertaken on electronic databases in the areas of awareness, usage, relevance, access, preference, orientations and training, and evaluation among others. It is found in the literature that there are sometimes a gap between awareness and usage of digital resources. Either users are aware of the resources and use them, users are aware and do not use them, or users are unaware of them and therefore do not use them. Studies by Nisha and Ali, (2013), Chirra and Madhusudhan, (2009), and Atakan et al, (2008) all found that clients were aware of and used the e-databases available to them. For example, Chirra and Madhusudhan (2009) in a survey on use of electronic journals by doctoral research scholars of Goa University,

India, revealed that all (100%) the respondents were aware of the e-journals of the Consortium and accessed them. Studies by Okello-Obura (2010), and Dadzie (2005) on the other hand found that respondents were not aware of most of the e-resources provided for them in their respective institutions and therefore, it affected their usage.

A deduction from Anaraki and Babalhavaeji's (2013) study was that when academics are not aware of the existence of e-resources in their library system they tend to use general search engines to meet their information needs. They found that only 16% of the academics in Iran were well acquainted with the e-resources of the integrated digital library (IDL) portal provided for them.

Other studies by Asemi and Riyahiniya (2007), and Baro et al (2011) argued that though awareness may lead to usage of a database, this is not always the case. It could happen that users' awareness level may be higher than usage. They reported that awareness level of their respondents about online resources was more than usage. For example, Baro et al (2011) found that whilst 23.2% were aware of Medline database, only 17% used it. Also whilst 60.8% were aware of HINARI, only 38.8% used it. Swain (2010) pointed out that awareness could be influenced by the interest and exposure that a user or a student has in the database. In his study of academics' keenness on the use of e-resources in the Business School of Orissa, India, he found that 62.5% of the academics were aware of EBSCO, 52.6% aware of Emerald and below 40% were aware of other databases. Libraries can have the greatest number of resources but if patrons are not using them they are worth nothing and a waste of resources. It is for this reason that usage of e-databases is critical in relation to its provision.

Various studies have been conducted on the usage of e-databases concerning whether they are being optimally utilised or not. Factors such as convenience, familiarity, exposure, infrastructure, search skills, relevance, and training, have been cited as factors influencing usage of e-databases. Wu and Chen (2012) studying how academics perceive, use, and manage electronic resources in the National University of Taiwan, found that usage varied according to the subject background of the academic. He, for example found that humanities lecturers perceived the e resources less important compared to lecturers of other disciplines. Similar assertions – that disciplinary differences can influence the use of databases - were made by Atakan et al (2008), and Talja and Maula (2003). Sinh and Nhung (2012) argued that users' behaviour will influence the usage of e-databases, and that factors that influence usage of databases are the purpose of usage, preferred types of materials, ways to learn the search, search techniques, and difficulties and expectations in using the databases. Thus, in their survey on searching behaviour of users of six online databases subscribed to by the Central

Vietnam National University in 2011 reported that 87.5% requested for full-text articles as compared with 12.5% who requested for abstracts. Similar finding was reported by Coombs (2005) that full-text databases were preferred to other databases. Even among the full-text databases, some are preferred to others because of the information architecture of the sites.

Okello-Obura (2010) in assessing the problems of LIS lecturers in Makerere University found that academics used some of the databases more than others. For example 92% used Emerald followed by Blackwell synergy 76%. Nobody used the following databases, AGORA, Royal Society of London, and Palgrave Macmillan Journals. Ndinoshiho's (2010) study of nursing lecturers in the University of Namibia revealed that 86.4% of the academics did not use the databases available to them because they were not familiar with the databases. Out of the 13.6% who used them, only 1.5% used them daily, 3.8% monthly and 3% rarely. Few who used them never used Medline database - one of the most prestigious medical database - because they were not familiar with it.

He et al. (2012) argued that academics thought of online academic search engines such as Google and Cite Seers as more important resources than university subscribed databases such as Elsevier, EBSCO, Emerald, Pubmed and JSTOR. And that depending on their tasks, they would prefer a particular resource to another. Similarly, Cothran (2011) found that graduate students used Google Scholar a lot because they found it easy to learn; easy to use; and easy to navigate. In addition, the design and interface were user-friendly and it was a useful resource for their research.

Nisha and Ali's (2013) found that users of the library used the databases because of the currency of e journals' articles and rich content. Various factors influence satisfaction derived from the usage of these resources. Ahmed (2013) in studying use of electronic resources by students and faculty in universities in Bangladesh found that respondents were not satisfied with the subscribed resources because of limited access to back issues; poor IT infrastructure; difficulty in finding required information; inability to access from home, slow download speed and online access problems.

Chu and Law (2005) postulated that knowledge, search expertise and usage of databases by students grow as they progress in their studies. Thus, familiarity with and usage of different databases developed as students progress in their studies and this familiarity is gained through instruction and promotion of the databases to them.

Anarki and Babalhavaeji (2013) submitted that the library should organise orientation classes and training programs in accessing, searching and downloading of e-resources effectively; adequate awareness among lecturers should be created to use e-resources to obtain

current information; more high-speed computer terminals should be installed in the various departments, departmental libraries, computer laboratories, etc.; the libraries' web pages should provide an online guide to e-resources and various search-options to e-resources; they should also introduce feedback systems (both online and offline) for observing the proper use of e resources; authorities should devise strategies to notify and motivate academics and the implications and functions of each database should be explained for the students so that an appropriate output is obtained; and faculty and librarians should collaborate to organise regular workshops to enhance the usage of e-journals and electronic databases.

RESEARCH METHOD

Survey research design was used and the entire population of 95 lecturers in the 5 departments who were on ground as at the time of this research (December, 2015) were adopted. In order to achieve the objectives of the study, a self-constructed questionnaire was used for the study. The questionnaire went through content validity check. Copies of the questionnaire were given to senior colleagues in the profession. The essence of this exercise was to ensure that the questions were clear, simple and appropriate for the study. On the basis of their suggestions and modifications, some of the items were modified to suit the objectives of the study. A final draft of the questionnaire was then prepared and used for the study.

A pretest of the study was conducted using test and re-test method. Twenty (20) lecturers from University of Maiduguri, Faculty of Medical Sciences, were used to test the reliability of the questionnaire. The reliability coefficient of 0.76 was obtained, and the coefficient was considered high enough for reliability (Tiraieyari, et al, 2011). This enabled the researcher to ascertain whether or not the questions asked were able to generate the required data. The questionnaire was then distributed.

METHOD OF DATA ANALYSIS

Data collected were analyzed using Descriptive statistics of frequency counts and percentages for answering the research questions. Tables were also provided where necessary.

RESPONSE RATE

Ninety five (95) copies of the questionnaire were administered to the respondents in all the six (6) Departments surveyed. Out of the 95 copies distributed,

90 (94.7%) were filled, returned and found usable. This gave a response rate of 94.7%.

DATA ANALYSIS

Table 1 illustrates the distribution of the lecturers into their various departments. This reveals that Architecture (34), Building (25), and Geography and Planning (18) have the highest number of lecturers respectively. However, departments of Urban and Regional Planning (12), and Estate Management (6) had the least number of lecturers in that order.

Table 2 shows the use of internet services by the lecturers. This revealed that all the lecturers 90 (100%) know how to use the internet. This finding is not surprising because the university has been organizing series of seminars, workshops and conferences for the lecturers, since 2002 up till this moment. This must have given most of the lectures the opportunity to acquire the basic skills on internet use. Nevertheless, this finding corroborates the works of Ahmed (2013) and Scholastic (2003) who on separate occasions inserted that most lecturers are computer/internet literate because most of the resources for teaching and research have gradually migrated to the internet. This then forced most lecturers to acquire the internet skills for them to remain relevant in this computer age.

Table 3 reveals the purpose(s) of the internet use by the lecturers. This showed that majority of the lecturers 72(80.0%) used the internet mostly for academic work. However, others 10 (11.1%) claimed that they used it for General information, 5(5.6%) searching for job and 3(3.3%) entertainment in that order. This finding corroborates the work of Nisha and Ali (2013), who claimed that most academics used the internet for academic exercise.

Table 4 shows the lecturers awareness of free internet services in the university library. This revealed that majority 85(94.4%) of the lectures were aware of the free internet services. However, 5(5.6%) of the lecturers claimed ignorant of the existence of the free internet services. This could possibly be because few lecturers were recently employed into the faculty. Hence, they may not be aware of the free internet services in the University Library.

Table 5 shows the awareness of the subscribed Elsevier online database amongst the lecturers. The findings revealed that only few 31 (34.4%) of the lecturers admitted awareness of the existence of the database on campus. However, 59 (65.6%) of the lecturers claimed ignorance of the existence of the Elsevier database. This finding could possibly be because the sensitization conducted for the lecturers on the existence of the Elsevier database was done during the student's

examination period. Hence, most of the lecturers were not present because they were marking the student's scripts at home. However, the low awareness level of the lecturers may not be surprising. According to Scholastic (2003), many lecturers have internet/digital phobia. This usually make them avoid any situation that will bring them close to computer or internet. These factors mentioned may have contributed to the low level of awareness of the new Elsevier database on campus.

Table 6 illustrates the sources of awareness by the lecturers that indicated awareness of the existence of the Elsevier database. This showed that majority 21(67.7%) of the lecturers became aware through university of Jos Library organized conferences/seminars/workshops/lectures. However, other lecturers claimed that they became aware of the database through library website 5(16.1%) friends 3(9.7%) and faculty board meeting 2(6.5%) in that order. This finding is surprising because the library had conducted series of sensitization on the awareness of free Elsevier database on campus, still many lecturers claimed ignorant of the database. Again this finding highlights the submission of Scholastic (2003) which states that many lecturers have digital/internet phobia. This make them to shay away from anything that will bring them close to computer or internet.

Table 7 shows the use of the Elsevier database amongst the lecturers that claimed awareness of the existence of the Elsevier database. This finding revealed that most 28(90.3%) of the lecturers that admitted awareness of the database used it. However, only 3(9.7%) of the lecturers said that they had never used it. This observation could be that most of the lecturers that have knowledge of the database were eager to use it. Hence, most of those that know about the database used it. This finding corroborates the work of Swain (2010), who claimed that awareness of existence of a database is usually directly proportional to its usage.

Table 8 illustrates the frequency of use of the subscribed Elsevier online database. This showed that among the 28 lecturers that admitted using the Elsevier database, majority 21(75.0%) of them claimed that they used it frequently. However, other lecturers 2 (7.1%) claimed that they used the Elsevier database occasionally and none of the lecturers claimed that he/she never used it respectively. This finding has shown that the Elsevier database is a very good database for the users. This could possibly explain why most of the lecturers that admitted using it, used it frequently. This finding support the work of Ahmed (2013) who submitted in his research that users of online databases usually consult a given database frequently if it captures their interest. This finding also corroborates the report of Wu and Chen (2013) who claimed that frequency of use of a database shows the relevance of the database, which also leads to high patronage by users. This has shown

Table 1: Distribution of the Lecturers by Departments**N=95**

<i>Department</i>	<i>No. Of Academics</i>
ARCHITECTURE	34
BUILDING	25
ESTATE MANAGEMENT	6
GEOGRAPHY & PLANNING	18
URBAN & REGIONAL PLANNING	12
Total	95

Source: University of Jos Academic Planning Report for 2014/2015 Session

Table 2: Use of Internet Services by the lecturers.**N=90**

<i>Options</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Yes	90	100
No	0	0.00
Total	90	100

Table 3: Purpose(s) of the Internet Use by the Lecturers:**N=90**

<i>Options</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Entertainment	3	3.3
Searching for job	5	5.6
Academic work	72	80.0
General Information	10	11.1
Total	90	100

Table 4: Awareness of Free Internet Services in the University's Library.**N=90**

<i>Options</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Yes	85	94.4
No	5	5.6
Total	90	100

Table 5: Awareness of the Subscribed Elsevier Online Database.**N =90**

<i>Options</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Yes	31	34.4
No	59	65.6
Total	90	100

Table 6: Source of Awareness**No. =31**

<i>Options</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Through Friends	3	9.7
Conferences / Seminars / Workshops/Lectures	21	67.7
Library website	5	16.1
Faculty Board Meeting	2	6.5
Total	31	100

**Table 7: Use of Elsevier Online Database
N=31**

Options	Frequency	Percentage (%)
Yes	28	90.3
No	3	9.7
Total	31	100

**Table 8: Frequency of Use of the Subscribed Elsevier Online Databases by the Lecturers.
N= 28**

Extent of Use	Frequency	Percentage
Frequently	21	75.0
Occasionally	5	17.9
Rarely	2	7.1
Never	0	0.0
Total	28	100

**Table 9: Constraints to the Effective Use of the Subscribed Elsevier Database
N=90**

Constraints	Frequency	Percentage (%)
Electricity	16	17.8
I don't have time	4	4.5
Low bandwidth	12	13.3
No enough space in the computer laboratory	1	1.1
Lack of enough computers	11	12.2
Unawareness of the existence of the subscribed Elsevier database	46	51.1
Total	90	100

that the content of Elsevier database is useful to the Faculty of Environmental Sciences Lecturers.

Table 9 shows the constraints to the effective use of the subscribed Elsevier database. This revealed that more than half 46(51.1%) of the lecturers indicated unawareness of the existence of the subscribed Elsevier database. Nevertheless, 16(17.8%) of the lecturers indicated electricity problem. While others claimed low bandwidth 12(13.3%), lack of enough computers 11(12.2%), I do not have time 4(4.5%) and no enough space in the computer laboratory 1(1.1%) respectively. This finding clearly shows that lack of awareness is the major factor affecting the use of the Elsevier database by the lecturers. This therefore, highlights the need for the library management to organize more seminars, conferences and workshop for the lecturers on the relevancy of resources in the Elsevier database for teaching and research.

SUMMARY OF FINDINGS

Based on the analysis and presentation of data, the following are summary of findings:

1. All the lecturers in the Faculty of Environmental Sciences know how to use the internet;
2. Majority (80.0%) of the lecturers used the internet mostly for academic purpose;
3. Majority (94.4%) of the lecturers are aware of the free internet services in the university library;
4. Very few (34.4%) of the lecturers are aware of the subscribed Elsevier online database;
5. The major sources (67.7%) of awareness of the existence of the Elsevier database by the lecturers were through Conferences/Seminars/Workshops/Lectures;
6. Most (90.3%) of the lecturers that admitted awareness of the Elsevier online database, used

it frequently;

7. Majority (75.0%) of the lecturers claimed that their major challenge in using the database was unawareness of the existence of the Elsevier database.

CONCLUSION

The major aim of this research was to assess the awareness and usage patterns of Elsevier Online database which the University of Jos recently subscribed in order to boost academic activities on campus. The findings of this research showed that majority of the lecturers on campus were unaware of the existence of the online database even after sensitization of all the lecturers on campus. Those few lecturers that admitted awareness of the existence of the database used it frequently for academic activities. Indicating, that the content of the Elsevier database were relevant for learning, teaching and research. However, most of the lecturers submitted that unawareness of the existence of the Elsevier online database was their major challenge in the use of the database. This research therefore, concludes that lecturers were not aware of this newly subscribed Elsevier online database. Hence, it was poorly used on campus.

RECOMMENDATION

In order to sensitize and increase the patronage of the subscribed Elsevier online database for academic activities by the lecturers on campus, the following recommendations should be considered for implementation.

- i. There is a crucial need for University of Jos Management to intensify the sensitization of lecturers on the Elsevier online database through organized conferences, workshops, seminars and lectures.
- ii. There is need also to encourage the use of the other subscribed online databases like "Oxford Journals Online, EBSCO HOST, Online Access to Research in the Environment (OARE), National Virtual Library, Database of African Theses and Dissertation (DATAD)" through organized workshops and seminars since, they are equally useful like the Elsevier database.
- iii. Since, a large number of the lecturers indicated that they wasted a lot of time trying to access the online databases, the university authority should therefore, increase the size of its Internet bandwidth. This will in turn reduce the time spent on accessing and downloading materials from the subscribed online database. This will go a long

way in encouraging many lecturers to use the database.

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