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Utilization of Electronic Information Resources by Undergraduate Students of University of Ibadan: A Case Study of Social Sciences and Education

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Abstract
The study evaluated utilization of electronic information resources by undergraduates in the Faculties of Education and the Social Sciences in University of Ibadan. The study adopted a descriptive survey design with a study population of 1872 undergraduates in the Faculties of Education and the Social Sciences in University of Ibadan, from which a sample of 200 respondents were selected from each faculty using a simple random technique. Data was analyzed using the SPSS software, frequency distribution and percentages. The findings revealed that the internet services, e-mail services, online databases, electronic databases and cybercafés were the available electronic information resources often used by the undergraduate students in University of Ibadan. However, inadequate power supply, poor network/internet connectivity and limited access to computer terminals
Keywords: Utilization, Electronic, Information resources,

Introduction

The use of ICT has the potential to radically alter our very social structure and mode of operation, and this social change will in turn force our educational institutions to react and change as well. With respect to the role of technology in higher education, Shields (2000) broke down the socio-technological movements into three stages. The first stage, the first personal computing movement of the early to mid –1980s spawned the second, the networking of the late 1980s to mid-1990s; the latter, in turn envisions the rise of virtual universities during the 2000s (Rosemberg, 2001). What is interesting about the third movement is that some of the advocates of virtual education believe that the traditional model of campus-based teaching, learning and scholarship must adapt to new technological realities, (for example the Internet, digital libraries, broad band multimedia capabilities, etc) or the proponents of distance learning believe that an ICT driven revolution can make higher education more affordable and more acceptable.

Most importantly, ICT significantly changes the way learning is conducted with the increase of information and communication technologies for instructional design, delivery and technology supported learning Barclay (2001). With the development of information technology, electronic resources are now available for use in libraries. New trends in the computer technology are allowing libraries to do things with more efficient and effective tools.

Objectives of the study

- To find out the types of electronic resources available for undergraduate students' use in University of Ibadan;
- evaluate the extent to which the undergraduates make use of the electronic sources of information in the University of Ibadan;
- find out the frequency of usage of electronic resources by the undergraduates in University of Ibadan;
- find out the benefits being derived by the undergraduates from the use of electronic information resources;
- ascertain the purpose for which the undergraduates use the electronic resources; and
- investigate the factors that hinder the use of electronic resources by the undergraduate students?

- **Research Questions**

The following are the research questions for the study:

- What are the types of electronic resources available for undergraduate students' use in the University of Ibadan?
- What is the extent to which the undergraduate students make use of electronic sources of information in the University of Ibadan?
- What is the frequency of usage of electronic resources by the undergraduates in University of Ibadan?
- What benefits do the undergraduates derive from the use of electronic information resources in the library?
- What is the purpose for which the undergraduates use the electronic resources?

Literature review

Use of Electronic Information Resources by Undergraduates

According to Shuling (2007), electronic information has gradually become a major resource in every university library in recent years. The growth and diversity of electronic resources, especially e-journals, has led many to predict the extinction of the printed journal. It has been suggested that a new paradigm is sweeping scholarship (Liew, Foo, and Chennupati, 2000; Harper et al., 2006).

In the global information communications technology (ICT)-dominated world, "place" is less important. The impact of moving from text-based to resource-based learning has involved heavier use of library materials and a demand for more and varied media sources (Kinengyere, 2007). This makes the provision and use of electronic information systems in academic libraries a critical issue for those working in information and library services (Armstrong et al., 2001). The pace at which information resources are being produced and converted into electronic formats is greater today than in previous years (Armstrong et al., 2001). In today's information age it would seem that library users would not only be eager to take advantage of the convenience electronic resources have to offer, but would be fully immersed in the new technologies (Elam, 2007).

Electronic information resources offer today's students new opportunities not available to previous generations. Liew, Foo, and Chennupati (2000) argue that while reading an e-journal is not the same as reading a printed issue, many people now acknowledge that electronic documents offer users advanced features and novel forms of functionality beyond those possible in printed form. Brophy (1993) noted that the advantages of electronic resources over print include speed, ease of use, ability to search multiple files at the same time, ability to save, print and repeat searches, more frequent updating, and the ability to access documents from outside the library (a particular advantage for the distance learner).

Electronic resources are invaluable research tools that complement the print-based resources in a traditional library. Their advantages include access to information that might be restricted to the user due to geographical location or finances, access to more current information, and provision of extensive links to additional resources or related content (Dadzie, 2005). The arguments for students using electronic resources are compelling. However, a knowledge of computers and retrieval techniques is needed to search these resources effectively. It is therefore necessary to determine what computer skills students need to access library electronic information resources (Okello-Obura and Magara, 2008).

Tella et al. (2007) noted that students' ability to find and retrieve information effectively is a transferable skill useful for their future lives as well as enabling the positive and successful use of academic electronic resources. The ability to explore the digital environment is a requirement for academic success today. Students are increasingly expected to use electronic information resources at the university. In order to make use of the growing range of electronic resources, students must acquire and practice the skills necessary to exploit them. Skills learning is essential in a technology driven environment, and it can be enhanced through the use of innovative learning strategies (Lawson, 2005).

Methodology

Survey method was adopted for this study primarily because it was a suitable and efficient way of studying large populations. It allows only a sample population to be used to represent the entire population. The target population for this study were the students of Faculties of Education and the Social Sciences of the University of Ibadan. The population consisted of mainly 300 and 400 level students. This is simply because they tend to understand and use the library more because of their projects for the final year. In Faculty of Education, there were 420 students in 300L and 522 students in 400L making a total of 942 students, while in the Faculty of the Social Sciences, there were 365 students in 300L and 565 students in 400L making a total of 930 students. This therefore makes a total of 1872 students in 300 and 400 Levels in the Faculties of Education and the Social Sciences. Questionnaire was the only instrument used for the collection of data for this study because it is capable of reaching a large number of respondents and provides privacy and confidentiality. The descriptive statistical technique made up of tables and percentages was used in analyzing the data collected.

Demographic Information of the Respondents

The demographic information of the respondents are presented and analysed below.

Table 1 Gender Distribution of the Respondents

Gender	Frequency	Percentage (%)
Male	101	53.7
Female	87	46.3
	188	100.0

The above table revealed that 101(53.7%) of the respondents were male while the remaining 87(46.3%) were female. These respondents cut across the 300 and 400 level students of the Faculties of Education and the Social Sciences in the University of Ibadan.

Table 2 Age Distribution of the Respondents

Age Range	Frequency	Percentage (%)
18-25	107	56.9
26-35	78	41.5
36-45	3	1.6
	188	100

Table above showed that majority 107(56.9%) of the respondents were within the age range of 18 and 25 years old. Also, 78(41.5%) of them were within 26 and 35 years of age while only 3(1.6%) of the respondents were between 36 and 45 years old.

Table 3 Level of Study of the Respondents

Level	Frequency	Percentage (%)
300	119	63.3
400	69	36.7
	188	100.0

Majority of the respondents, 119(63.3%) were in their third year of study, that is, 300 level while 69(36.7%) were in 400 level.

Answer to Research Questions

In order to achieve the objectives of this study, six research questions were drawn and these questions were answered below.

Research Question 1: What are the types of electronic resource available for undergraduate students use in University of Ibadan?

The table below revealed that about 47(25%) of the respondents agreed that CD-ROM databases were available in University of Ibadan. Contrarily, 188(100%) of the respondents agreed that both the internet services and e-mail services were available for the use of undergraduate students in the University. A little less than half of the respondents 75(39.9%) and 60(31.9%) affirmed the availability of electronic journals and OPAC respectively. However, for the online databases, 95(50.6%) of the respondents confirmed its availability while 108(57.4%) respondents confirmed the availability of electronic databases. Electronic books was only affirmed by just 76(40.5%) of the respondents while all the respondents 188(100%) agreed that cybercafés were available for students' use in the University.

Table 4 Types of Electronic Resources

	Electronic Resources	SA	A	D	SD
a.	CD-ROM Databases		47 (25%)	69(36.7%)	72(38.3%)
b.	Internet services	78 (41.5%)	110 58.5%)		
c.	E-mail services	83 (44.1%)	105 55.9%)		
d.	Electronic journals	24 (12.8%)	51(27.1%)	61(32.4%)	52(27.7%)
e.	Online Public Access Catalogue (OPAC)	15 (8.0%)	45 (23.9%)	96 (51.1%)	32 (17%)
f.	Online databases	27 (14.4%)	68 (36.2%)	53 (28.2%)	40 (21.3%)
g.	Electronic databases	39 (20.7%)	69 (36.7%)	57 (30.3%)	23 (12.2%)
h.	Electronic books	21 (11.2%)	55 (29.3%)	76 (40.4%)	36 (19.1%)
i.	Cybercafés	67 (35.6%)	121 64.4%)		

Research Question 2: What is the extent to which the undergraduate students make use of electronic sources of information in University of Ibadan?

Table 5 analysed the extent to which the undergraduate students make use of the electronic information resources in the University. Most undergraduate students use the electronic information resources always. It was discovered that about 92(49%) of the respondents used the CD-ROM databases, 62(33%) used the electronic journals while only 58(30.9%) of the respondents used the electronic books. On the contrary, almost all the respondents 181(96.3%) used the cybercafés, while 170(90.5%) respondents used the E-mail service and

168(89.3%) used the internet services always. Also, 108(57.4%) of the respondents agreed that they used the electronic databases, while a little more than half 104(55.3%) of the respondents agreed that they used the online databases in the University of Ibadan.

Table 5 Extent of Use of Electronic Information Resources

	Use of Electronic Resources	SA	A	D	SD
a.	CD-ROM Databases	34 (18.1%)	58 (30.9%)	60 (31.9%)	36 (19.1%)
b.	Internet services	79 (42%)	89 (47.3%)	20 (10.6%)	
c.	E-mail services	77 (41%)	93 (49.5%)	15 (8.0%)	3 (1.6%)
d.	Electronic journals	18 (9.6%)	44 (23.4%)	71 (37.8%)	55 (29.3%)
e.	Online Public Access Catalogue (OPAC)	43 (22.9%)	37 (19.7%)	88 (46.8%)	20 (10.6%)
f.	Online databases	55 (29.3%)	54 (28.7%)	41 (21.8%)	38 (20.2%)
g.	Electronic databases	47 (25%)	61 (32.4%)	55 (29.3%)	25 (13.3%)
h.	Electronic books	21 (11.2%)	37 (19.7%)	101 (53.7%)	29 (15.4%)
i.	Cybercafés	50 (26.6%)	131 (69.7%)	7 (3.7%)	

Research Question 3: What is the frequency of usage of electronic resources by undergraduates in University of Ibadan?

In the table 6 below, most of the respondents 112(59.6%) indicated that they rarely used the CD-ROM databases. On the contrary, 158(84%) of the respondents affirmed that they used the Internet often while 170(93.7%) of them used the e-mail very often. The electronic journals was often used just 41(21.8%) of the respondents. The Online Public access Catalogue was rarely used by all the respondents 188(100%) while the electronic books was also rarely used by most of the respondents 152(80.9%). Online databases was often used by 83(44.1%) of the respondents. However, electronic databases was often used by 91(48.4%) of the respondents while the cybercafés was often used by virtually all the respondents 185(98.4%).

Table 6 Frequency of Use of Electronic Resources

	Frequency of Use of ER	Frequency			
		Very Often	Often	Occassionally	Rarely
a.	CD-ROM Databases		21 (11.2%)	55 (29.3%)	112 (59.6%)
b.	Internet services	81 (43%)	77 (41%)	30 (16%)	
c.	E-mail services	74 (39.4%)	102 (54.3%)	12 (6.4%)	
d.	Electronic journals		41 (21.8%)	60 (31.9%)	87 (46.3%)
e.	Online Public Access Catalogue (OPAC)				188 (100%)
f.	Online databases		83 (44.1%)	91 (48.4%)	14 (7.4%)
g.	Electronic databases	14 (7.4%)	77 (41%)	51 (27.1%)	46 (24.5%)
h.	Electronic books			36 (19.1%)	152 (80.9%)
i.	Cybercafés	141 (75%)	44 (23.4%)	3 (1.6%)	

Research Question 4: What benefits do the undergraduates derive from the use of electronic information resources in the library?

The benefits derived by the undergraduates from the use of electronic information resources are varied and are indicated in the table below. Most of the respondents 147(78.2%) affirmed that they have access to current and up-to-date information, 125(66.5%) respondents indicated faster access to information, and 104(55.3%) respondents indicated access to a wider range if information. Meanwhile, a little more than half of the respondents 99(52.7%) indicated that they have easier access to information as a result of the use of electronic information resources while a little below half 90(47.9%) of the respondents reported that the use of the

electronic resources improved their academic performance as a result of access to quality information.

Table 7 Benefits of Use of Electronic Resources

	Benefits of Use of ER	Frequency	Percentage %
a.	Access to a wider range of information	104	55.3
b.	Faster access to information	125	66.5
c.	Access to current up-to-date information	147	78.2
d.	Easier access to information	99	52.7
e.	Improved academic performance as a result of access to quality information	90	47.9

Research Question 5: What is the purpose for which the undergraduates use the electronic resources?

Table 8 presented the various purposes for which the undergraduate students used the electronic information resources. The Table showed that all the respondents 188(100%) used the electronic resources for academic purposes/ course works and for online application/registration. About 170(90.4%) of the respondents used the electronic resources for assignments, 96(51%) respondents used it for research purposes, 142(75.5%) used it to communicate with friends and colleagues, while 122(64.9%) used it as sources of information for project writing and 132(70.2%) of the respondents used the electronic resources for other personal purposes.

Table 8 Purpose of Use of Electronic Resources

	Purpose of Use	SA	A	D	SD
a.	Academic purposes/course works	77 (41%)	111 (59%)		
b.	Complete assignments	69 (36.7%)	101 (53.7%)	18 (9.6%)	
c.	For research purposes	35 (18.6%)	61 (32.4%)	88 (46.8%)	4 (2.1%)
d.	Communicate with friends and colleagues	57 (30.3%)	85 (45.2%)	35 (18.6%)	11 (5.9%)
e.	Online application/ registration	122 (64.9%)	66 (35.1%)		
f.	Source for materials for project writing	30 (16%)	92 (48.9%)	60 (31.9%)	6 (3.2%)
g.	Personal	49 (26.1%)	83 (44.1%)	56 (29.8%)	

Research Question 6: What are the factors that hinder the use of electronic resources by the undergraduates?

Table 9 presented the various factors that hinder the use of electronic resources by the undergraduates in University of Ibadan. Among these factors, inadequate power supply was a major problem which had the highest ranking of 156 (83%) response rates. Following this is the poor network/internet connectivity with 148(78.7%) of the respondents agreed, and limited access to computer terminals of which 112(59.6%) of the total respondents agreed, as well as too much information retrieved which had 107(56.9%) respondents agreed.

Table 9 Factors that Hinder the Use of Electronic Resources

	Factors that Hinder ER Use	Frequency	Percentage %
a.	There is too much information retrieved	107	56.9
b.	Time consuming and wastes a lot of my time	81	43.1
c.	Limited access to computer terminal	112	59.6
d.	Lack of IT knowledge to effectively utilize the services	56	29.8
e.	Using electronic resources often distracts me from doing my other work	48	25.5
f.	Uncooperative staff to facilitate easy access	79	42
g.	Inadequate power supply	156	83
h.	Poor network/internet connectivity	148	78.7

Table 10 presented the different suggestions raised by the respondents on the improvements to electronic resources utilization in University of Ibadan. Some of the suggestions raised included: acquisition of more networked computers by the University, improved computer skills of students, introduction of the first year students to ICTs and information literacy, and training of the librarians to know how to work with students. They also suggested that the OPAC system should be made more functional and that the university libraries should improve on awareness campaign of e-resources.

Table 10 Suggestions for Improvements to E-Resources Utilization

	Suggestions for Improvements	Freq	%
a.	Computer skills of students should be improved	121	64.4
b.	First year students should be introduced to ICTs and information literacy	111	59
c.	Lecturers should insist on students using e-resources for coursework	90	47.9
d.	Librarians should be trained to know how to work with students	103	54.8
e.	More networked computers should be purchased by the University	164	87.2
f.	University Libraries should improve on awareness campaign of e-resources	100	53.2
g.	The OPAC system should be made more functional	131	69.7
h.	The university should introduce e-resources fee to be paid by students	89	47.3

Conclusion and Recommendations

Conclusion

The study found out that electronic information resources like internet, e-mail services, cybercafés, electronic databases and electronic journals were available for the use of undergraduate students in University of Ibadan and these resources are often used by them to support their academic course works, online application/registration, research, communication with friends and colleagues, sourcing for materials for project writing, complete assignments and for other personal purposes. However, the use of these resources by the undergraduates have resulted in a number of benefits such as access to current and up-to-date information, faster and easier access to information, and access to a wider range of information.

The study result has shown that the use of electronic information resources by undergraduate students in University of Ibadan is a bit low. Inadequate power supply, inadequate provision of key electronic resources and facilities in the library were identified as key factors militating against the effective use of the electronic information resources.

Recommendations

The following recommendations were made, based on the findings of this study.

- The University should give priority to the development of information and communication technologies in the library by subscribing to relevant educational databases and carrying out a retrospective conversion of the library's print materials to digital format. This is to make the online searching easy for the students.
- The University Library should ensure sufficient networked computers and other facilities for the use of the undergraduate students in the library.
- Information retrieval skills using information technology should be included in the curriculum for the undergraduate students to be able to make use of these electronic resources effectively. Hands-on training on the use of these resources should be actively promoted.
- The cost of accessing and downloading the electronic resources by students should be highly subsidized if they are to bear the list of off-prints and buy access time, in order to encourage the use of the electronic resources.
- Adequate provision should be made for alternative power supply to solve the problem of erratic and epileptic power supply which makes accessibility to the electronic resources difficult for the undergraduate students.
- The CD-ROM database should be resuscitated to reduce the stress and difficulties usually encountered in the online environment while using the electronic resources.

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