Journal of Information Engineering and Applications
ISSN 2224-5782 (print) ISSN 2225-0506 (online)
Vol.8, No.4, 2018

Information Literacy, Computer Competence and Use of Electronic Resources by Olabisi Onabanjo Faculty Members.

Odunewu, Abiodun O. (Corresponding author)
bodunewu@yahoo.com
&
Aluko-Arowolo, T. K.
Olabisi Onabanjo University,
Ago-Iwoye.

Abstract
University libraries in Nigeria are struggling within lean financial resources to provide electronic information resources for their clients. Studies have indicated poor use of library electronic resources. This study thus set out to investigate whether the lecturers possesses the skills to effectively use the electronic resources. The study probed into the information literacy, computer competence level of the lecturers and their use of electronic resources. Questionnaire survey was conducted for the study. A total of 125 of the questionnaires administered were duly completed, retrieved and analysed. The study found that the lecturers were information literate, possess computer competence and use electronic resources. They have access to and do use the internet and the library portal. The study among others recommends training and re-training for the academic staff in the effective use of electronic information resources.

Introduction
The advent and adoption of Information and Communication Technology (ICT) especially the internet to various human chores had brought about monumental changes in the way tasks are performed. It has changed the way services are delivered and brought about a platform for communication, information generation, access and dissemination.

The access to the internet and other ICT facilities and services has impacted the way information for teaching, learning and research is being sourced and accessed. Ahmad and Panda (2013) captured this scenario when they posits that in this electronic and internet era, users have a number of options to fulfil their information needs. They need not come physically to the library to use print formats but can from anywhere access online a variety of library resources and services. This is not to suggest that the print editions are no longer useful, but easy access and ease of use encourages the use of electronic resources; moreso when it can be remotely accessed.

Electronic resources are computer based database of books, journals, dictionaries, encyclopaedias and other information resources. To be able to fully exploit the resources, it is expected that individuals should be skilled in information literacy and have a high level computer use competence. Computer competence refers to the knowledge and ability to use computers and related technology effectively. It is essential and crucial to overall success in the academia today. Shuster and Pearl (2011) posits that due to the vast amount of knowledge available via technology, higher education is inextricably linked with computer usage. Consequently, education can only be as good as the computer competency skills of those involved.

Information literacy is the ability to know when there is need for information, to be able to identify, locate, evaluate and effectively use that information for the issue at hand (United States National Forum for Information Literacy; 2012). Information literacy forms the basis for lifelong learning, it enable learners to master content and extend their investigations, become more self confident and assume better control over their own learning.

The Olabisi Onabanjo University Library as part of efforts at fulfilling its mandate of supporting teaching, learning and research in the University apart from provision of rich paper based resources created a portal for the use of electronic resources. The portal is designed in a way that access is remotely possible. That is, you can access it at *library.oouagoiwoye.edu.ng* from any location in the world. The remote access initiative is to ensure that the portal is accessible 24 hours a day and that library users do not have to get to the library's physical building to use the resources; as is the case in some Nigerian Universities.

The electronic resources were acquired and subscribed to with scarce fund; and it is essential that the access and use should be a subject of concern to the library. This study is therefore set out to establish a relationship or otherwise between users information literacy, computer competence and the use of electronic resources.

Statement of the problem

Electronic resources provision in Universities is targeted at supporting the information needs of members of the University community. Literature have found correlation between electronic resources availability and access for use and higher number of publications and more professional recognition. On the other hand, there are increasing reports on low research productivity among Nigerian academics. It is therefore pertinent that an assessment of electronic resources use among academics be carried out with a view to find out the level of use and necessary competencies possessed to allow for effective use of the resources.

Objectives of the study

This study aims at accomplishing the following objectives

i. Determine the level of information literacy of faculty members in Olabisi Onabanjo University
ii. To find out their computer competence level
iii. To ascertain their rate of internet access
iv. To find out their rate of e-resources use
v. To find out the ease of library portal connection

Research hypothesis

Specific hypotheses for this study are

H_1 - There will be no significant relationship between information literacy and electronic information resources use.

H_2 - There will be no significant relationship between computer competence and electronic information resources use.

Review of related literature

Electronic information resources are products of information and communication technology to information management. Many University libraries have been increasing their electronic resources database to ensure efficient and effective information resources provision in the technology driven academic environment. Electronic resources have exploded in popularity and use. They can and do enable innovation in teaching, and they increase timeliness in research as well as increase discovery and creation of new fields of inquiry. (Ahmad and Panda, 2013; Henderson and Machewan, 1997).

Dadzie (2007) sees electronic resources as invaluable research tools that complement the print-based resources in a traditional library setting; and they are quite useful as they grant access to information that might have been restricted to the user due to finances and geographical locations. It enables access to more recent information and make suggestions of links to additional resources related to the content. Okiki (2013) and Cohen (2006) found in their different studies that researchers who use electronic resources are more productive. Electronic resources do not seem foreign or new to members of the academic communities. Ahmad and Panda (2013) in their study on use of electronic information resources in Indian Institutes in Dubai found high rate of use among the academics. Actually 100% of the respondents use e-resources.

Electronic resources use comes with its own challenges which Manda (2015) sees to include lack of skills, lack of awareness of available resources, lack of competence of the e-resource use, lack of knowledge, negative attitudes, poor practices and inadequate and limited infrastructure. Iwona (2008) lists the skills needed for effective exploitation of electronic resources; and they include basic knowledge of computer, proficiency in using productivity software, electronic communication skills as well as internet skills. An analysis of the challenges reveal that lack of relevant skills, competency and proficiency are core issues.

Information literacy can be seen as a set of skills that makes an individual recognise when information is needed, locate it, evaluate and use it effectively. The United States National Forum on Information Literacy (2015) defines it as the ability to know when there is a need for information, to be able to identify, locate and effectively use that information for the issue or problem at hand. An information literate person is not expected to have challenges accessing and using electronic information resources. A major pointer to low level of information literacy is the rush to 'Google' and other search engines when need for information arise among Nigerians. A report of OCLC (2006) indicated that 89% of U.S undergraduate students preferred to start their information search with search engines while only 2% start with a library website. Angello (2010) find lack of information literacy skills among most of the researchers and this was limiting their access and use of electronic resources.

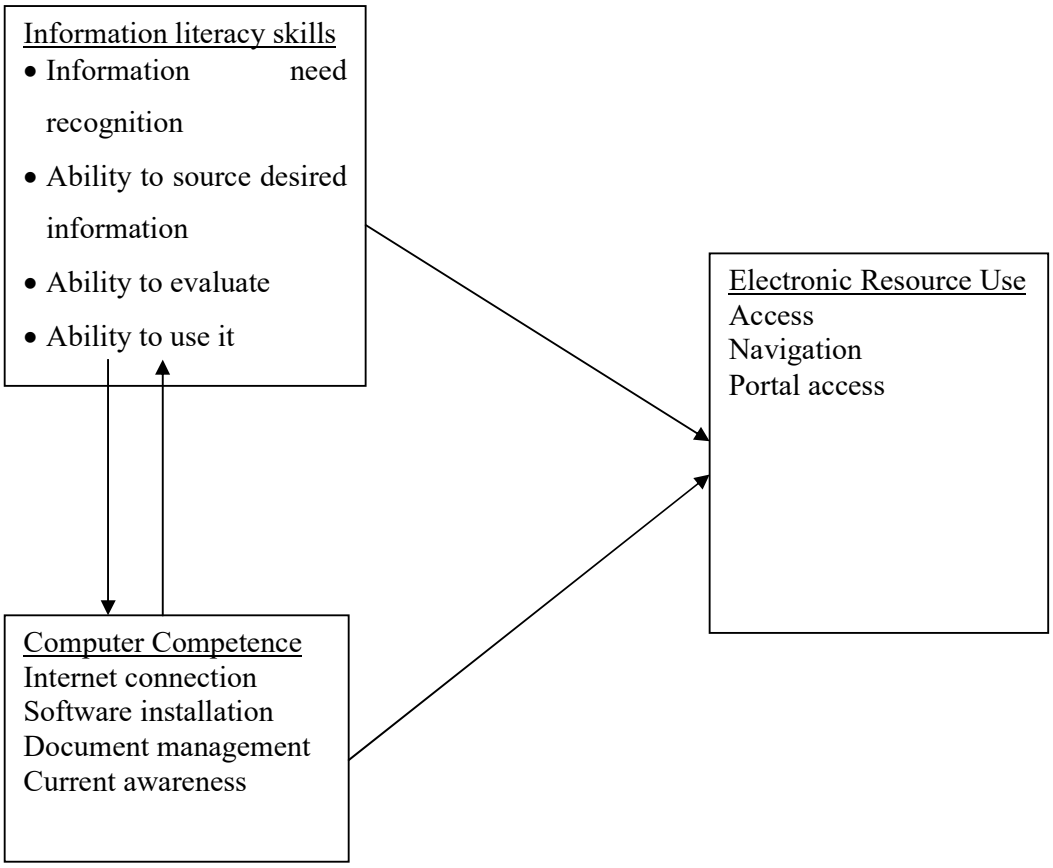
Ahmad and Panda (2013) found that electronic resources were being underutilised by faculty members of Indian Institutes in Dubai International academic city, as a result, they suggested a probe into the actual competence levels in use of electronic resources.

E-resources are deployed on computers; and as such high level competence in the use of computers and accessories are expected for the maximal utilisation of electronic resources. A number of studies have probed into the relationship between information or computer competences and information searching skills. Latham (2009) found that undergraduate students self-reported they were computer information proficient, but their knowledge and information searching skills were insufficient. If this situation is true, then there seems not to be correlation between computer competence and resources use. Wu and Yeh (2012) investigated the effects of students' computer competence on usage of library electronic collections; they found that not all studentspossess the same level of computer competence to use electronic resources. They also found low correlation between students' computer competences and their frequency, familiarity and perceived importance of electronic resources.

Tenopir (2003) found that students bring Web searching habits to their use of electronic scholarly materials and seem to have difficulty adapting to different types of information resources, interfaces, or search systems. This reflects a gap in their computer competence level; as with the right level competence, navigation on any computer platform will not be challenging.

Literature had therefore suggested a relationship between levels of literacy, computer competence and use of electronic information resources.

CONCEPTUAL FRAMEWORK FOR THE STUDY



Methodology

Descriptive research approach was adopted for the study. The study consists of all academic members of staff on the Main Campus of the Olabisi Onabanjo Univeristy, Ago-Iwoye. Convenience sampling technique was adopted for the study. 200 copies of a self designed questionnaire titled Information literacy; computer competence and electronic resources use (ILCCER) were produced. 127 were retrieved, 2 out of the retrieved ones were not found useful for the study. The study thus use 125 questionnaire for data analysis.

Data analysis

Table 1: Faculty background of the Academic Staff

Faculty	Frequency	Percent	Valid percent	Cumulative percent
Science	47	37.6	37.6	37.6
Arts	24	19.2	19.2	56.8
Social sciences	25	20.0	20.0	76.8
Education	21	16.8	16.8	93.6
Law	8	6.4	6.4	100.0
Total	125	100.0	100.0	

Table 1 represents a breakdown of the faculty background of the Academic staff used in the study. Majority were from the faculty of science.

Table 2: Perceived level of Information literacy

	Frequency	Percent	Valid percent	Cumulative percent
Strongly agree	23	18.1	18.4	18.4
Agree	94	74.0	75.2	93.6
Disagree	6	4.7	4.8	98.4
Strongly disagree	2	1.6	1.6	100.0
Total	125	100.0	100.0	

Table 2 reveals that majority of the academic staff of the university feels confident about their level of information literacy.

Table 3: Computer competence

	Frequency	Percent	Valid percent	Cumulative percent
Strongly agree	10	7.9	8.0	8.0
Agree	74	58.3	59.2	67.2
Disagree	22	17.3	17.6	84.8
Strongly disagree	19	15.0	15.2	100.0
Total	125	98.4	100.0	

Table 3 shows that academic staff members expressed their competence in the use of computer and its accessories.

Table 4: Electronic resource use

	Frequency	Percent	Valid percent	Cumulative percent
Strongly agree	25	19.7	20.0	20.0
Agree	86	67.7	68.8	88.8
Disagree	10	7.9	8.0	76.8
Strongly disagree	4	3.1	3.2	100.0
Total	125	98.4	100.0	

Table 4 reveals that majority of the lecturers are familiar with e-resources and do use them.

Table 5: Rate of their Internet access and use (903)

Hours per day	Frequency	Percent	Valid percent	Cumulative percent
Below 2	20	16.0	16.0	16.0
2 – 4 hrs	38	30.4	30.4	46.4
Over 5 hrs	62	49.6	49.6	96.0
Undecided	5	4.0	4.0	100.0
Total	125	100.0	100.0	

Table 5 reveals that majority of them access and use the internet on a daily basis. It shows that majority of the lecturers spend between 2 and above 5 hours a day on the internet.

Table 6: Library Portal Access

	Frequency	Percent	Valid percent	Cumulative percent
Strongly agree	32	25.6	25.6	25.6
Agree	82	65.6	65.6	91.2
Disagree	7	5.6	5.6	96.8
Strongly disagree	4	3.2	3.2	100.0
Total	125	100.0	100.0	

Table 6 reveals that majority of the lecturers can access and use the library portal.

Hypothesis testing: The study set out to establish the relationship between electronic resources use, information literacy and computer competence of the lecturers. Two hypotheses were therefore formulated:

H_1 – There will be no significant relationship between information literacy and electronic information resource use.

H_2 - There will be no significant relationship between computer competence and electronic information resources use.

Correlations:

		Information literacy	E resources use	Computer competence
Information literacy	Pearson Correlation	1	.901**	.628**
	Sig.(2tailed)			
	N		000	.000
		125	125	125
E resources use	Pearson Correlation	.901**	1	.731**
	Sig.(2tailed)			
	N	000		000
		125	125	125
Computer competence	Pearson Correlation	.628**	.731**	1
	Sig.(2tailed)			
	N	.000	000	
		125	125	125

** Correlation is significant at the 0.01 level (2 tailed)

From the correlations above, significant relationship were established between electronic resources use and information literacy on one hand; and between e-resources use and computer competence on the other hand. Therefore, hypotheses 1(H1) and 2 (H2) are rejected as the correlations significance level is ‹ 0.01

DISCUSSION OF FINDINGS

The study found that majority of the respondents used for the study were scientists from the Faculty of Science. They represent 37.6% of the sampled lecturers. It is also found that majority of them are information literate and possess necessary skills in computer use competence. They are found to be using electronic information resources and can access and use the University's library portal. Their claim of using electronic information resources needs to be further investigated as an OCLC (2006) report indicated that 89% of U.S undergraduate students preferred to start their information search with search engines while only 2% start with a library website. The lecturers too may be approaching the searches through the same mean and still claim they use electronic resources. The problem here is that information databases and library portals contain carefully selected information resources that have gone through thorough evaluation; whereas search engines bring all sorts of information to the fore. It is thus difficult to establish the authenticity of such information available therein.

The study also reveals that the lecturers have access and use the internet regularly. Majority spend between two and above five hours per day on the net. The study found a strong correlation between information literacy, computer competence and electronic information resources use by the lecturers.

Conclusion and recommendations

The study concludes that information literacy and computer competence are basic, useful and necessary skills needed to maximally exploit electronic information resources, which will in turn increase the productivity of the lecturers, especially in their research endeavour. To ensure and enhance the lecturers' ease of access and use of electronic resources the following are recommended:

- Training and re-training – The University library in conjunction with relevant bodies and faculties should be organising various trainings and re-trainings in the access and use of electronic information resource.
- Personalised services – To enhance lecturers use of Electronic resources and the library portals, the multimedia resource centre of the University library should exploit the selective dissemination of information to attract the lecturers' to the array of information resources available on the library portal. New arrivals, especially journal update information should be sent to the mails of lecturers in their areas of interest.
- Electronic notice board – The University library should seek approval for electronic notice board on the university website. New arrivals, additions to the stock can be displayed there. The notice board should be conspicuously placed on the site to attract visitors who has gone to the site for some other things.

References

Ahmad, M. & Panda, K. C. (2013) Awareness and use of electronic information resources by the faculty members of Indian Institutes in Dubai International City: A survey. *International Research Journal of Computer Science and Information Systems*. 2(1) 8 – 17.

Angello, C. (2010) The awareness and use of electronic information sources among livestock researchers in Tanzania. *Journal of Information literacy.* 4(2) 6-22.

Cohen, J. (2006) Computer Mediated Communication and Publication Productivity among Faculty. *Internet Research Electronic Networking Applications and Policy* 6, 2 – 3: 41-43.

Dadzie, P. S. (2007) Electronic Resources access and usage at Ashesi University College. *Campus-wide information systems.* 22.5. Accessed from http://www.emeraldinsight.com on 10th October, 2015.

Henderson, T., Machewan, B. (1997) Electronic collections and wired faculty. *Library Trends*. 45(3) 488-498.

Iwona, M. (2008) ICT skills: an essential graduate skill in today's global economy. *Higher Education Research Development*. 19. 261-277

Manda, P. A. (2005) Electronic resources usage in academic and research institution in Tanzania. *Information Development*. 21. 4:269-282.

OCLC (2002) How academic librarians can influence students web based information choices: OCLC white paper on the information habits of college students. Accessed at http://www.2ock.org.oclc/pdf/printondemand/informationhabitspdf on 12th June, 2012.

OCLC (2006) College students perceptions of libraries and information resources: A report to the OCLC membership. Accessed at http://www.oclc.org/reports/pdfs/studentperceptions.pdf on 12th June, 2002.

Okiki, O. C. (2013) Availability of Information resources for research output: perception of academic staff in Nigerian Federal Universities. *International Journal of Computer Science and Telecommunications*. 4. 8: 26-33.

Shuster, G. F. & Pearl, M. (2011) Computer competency: A 7 – year study to identify gaps in student computer skills. *International Education Studies.* 4(4). Accessed on 9th April, 2016 at www.ccsenet.org/ies.

Tempair, C. (2003) Use and users of electronic library resources: an overview and analysis of recent research studies. Accessed at http://works.bepress.com/carol_temppir/92. on 12th June, 2012.

United States National Forum on Information Literacy (2012) What is the NFIL? Accessed @ www.infolit.org on 9th April, 2016.

Wu, M. & yYeh, S. (2012) Effects of undergraduate student computer competence on usage of library electronic collections. *Journals of Library and Information Studies.* 10(1).