

Internet Literacy For Research Development Among Lecturers In Tertiary Institutions In Rivers State, Nigeria

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Abstract

Research is necessary for sustainable development in any nation. Nigeria in general and Rivers State in particular are not left out. In Rivers State, there are six (6) Tertiary Institutions of reputable standards. However, with the level of global technological advancement, it becomes imperative that Institutions embrace resources that can greatly enhance research development – the INTERNET. The Internet has totally transformed all spheres of human activities including education. To be able to fully utilize Internet resources for research development, lecturers need to have a good knowledge of the Internet. This study, therefore, aims at determining the level of Internet Literacy for research development among Lecturers in the institutions in Rivers State, Nigeria. To this end, a questionnaire titled: “Determining the level of Internet Literacy among Lecturers (DILL) was used to answer three (3) research questions. Data was analyzed using simple percentages. The findings revealed that only 32% of the lecturers access the Internet at home and use it for research work; the major constraints lecturers have are irregular electric power supply and lack of access to Internet facilities especially in their offices. Thereafter, recommendations that can eliminate the constraints inhibiting the use of the Internet were put forward

Keywords: internet, internet features, internet literacy, research development

INTRODUCTION

The Internet as defined by Wikipedia (2010) is a global system of interconnected computer networks that serve billions of users worldwide, a network of networks that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic and optical networking technologies. Communications media today - telephone, music, film, and television - are being redefined by the Internet. Newspapers, books and other print publishing are posting their information to web sites. Human interactions have changed since the inception of the Internet. Today, we have instant messaging, Internet forums, and social networking. In 1969, the U.S. Department of Defense, created ARPANET (Advanced Research Projects Agency (ARPA) Network, a project that allowed the government and research institutions to share information through packet switching (Smithsonian.Yahoo.com). The current Internet grew out of the technology developed for ARPA. The Internet is a unique medium with global impact.

Modern Uses of the Internet

The uses of the Internet are many and vary. People can now access the Internet almost anywhere by numerous means, especially through mobile Internet devices such as mobile phones, data cards, handheld game consoles and cellular routers. These devices allow users to connect to the Internet from anywhere there is a wireless network supporting that device's technology. Business teams collaborate and share

documents and other information. This collaboration also occurs in a wide variety of areas including scientific research, software development, conference planning, political activism and creative writing. Social and political collaboration is also becoming more widespread as both Internet access and computer literacy grow (Wikipedia, 2010). The Internet also enables remote login, that is, computer users can remotely access other computers and easily store information wherever they may be across the world. This feature of the Internet has benefited several organizations. For example, an office worker away from his desk, perhaps at another part of his country can open a remote desktop session into his normal office Personal Computer (PC) via the Internet. This gives the worker complete access to all of his or her normal files and data, including e-mail and other applications, while away from the office. The Internet has greatly promoted education. Educational materials, like school revision guides, virtual universities, scholarly literature e.t.c. at all levels is available from websites found on the Internet. People, who engage in distance education, like in the open university system in Nigeria have access to resources required to complete learning tasks and assessment activities on-line. They can get help with homework and other assignments, conduct self-guided learning, or look up more details on related subjects. The Internet has enabled both formal and informal education. The instantaneous sharing of ideas, knowledge, and skills has made

collaborative work easier through the use of collaborative software. Internet chat allows people to stay in touch when working at their computers during the day (Wikipedia, 2010). As laudable as the use of internet are in the various spheres of human endeavour, there are still some constraints inhibiting the use of internet facilities. Ogunkunle (2005) identified three major barriers to the use of ICT facilities as:

- Government related(inadequate funding of infrastructures);
- Teacher related(teachers negative attitude towards ICT) and
- Student related (lack of access to ICT facilities).

These uses of the Internet are mainly possible as a result of its features. The features of the Internet as highlighted by the World's first book (2000) include:

- 1) Web features, which have search capabilities. The development of search sites provides the capability to effectively search the content of millions of web pages in seconds. Social networking sites like Face book, Twitter, MySpace, YouTube, Flickr, AOL e.t.c create opportunities for people to meet, communicate and collaborate for research development.
- 2) Usenet group features, which support group communications. The Usenet is a powerful facilitator of group communication. One person can post a message on the Usenet, another person reply to it, and a third person reply to either message, no matter where they are in the world, and whenever is convenient to them.
- 3) Electronic Mail (E-mail) features, is an important communications service available on the Internet. With e-mail, people can collaborate and get research materials from colleagues of the same field of study in Universities around the world.
- 4) Internet Relay Chat (IRC) features. IRC was the first world-wide chat system, bringing people together in real-time at minimal cost across great geographic distances.
- 5) Key Mailing List features. This feature of the Internet supports one-to-many communication, enabling one person to communicate with many people at the same time. This feature is similar to the real-world communication power of a person speaking to a group, except that the members of the audience may be located anywhere in the world. Like so many of the Internet technologies, mailing lists are important primarily because of their power to bring people around the world together in a single communication setting.

For anyone to benefit from these features, he/she should be able to use the Internet. Ogunkunle (2005)

noted that teachers should develop self-confidence and perceive Information and Communication Technology (ICT) as relevant in instructional process. This is a compelling reason why lecturers who are custodians and disseminators of knowledge should be Internet literate. They need it dearly especially for research and academic development. Internet literacy is a subset of Information and Media Literacy (IML). The Free Dictionary (2010) explains that the purpose of being information and media literate is to engage in a digital society, to be able to use, understand, inquire, create, communicate and think critically. The individual has the capacity to effectively access, organize, analyze, evaluate, and create messages in a variety of forms. IML and its subset Internet literacy include creating new knowledge. Internet Literacy can thus be defined as the ability to use, understand, and communicate effectively using the Internet, its tools and features. It involves possessing skills required to create and publish new knowledge, collaborating responsibly through the Internet. These skills are needed by everyone lecturers inclusive to be able to use the Internet for research development effectively.

The value of the Internet cannot be over-emphasized in research. Research, according to Yusuf & Onasanya, (2004) is the major index of an academic staff quality. It determines a lecturer's advancement. They enumerated specific areas of relevance of Internet to Lecturers in the areas of research:

1. Information and communication with one another through e-mail, mail lists, newsgroups and chat rooms. These Internet features :
 - enable communication between lecturers as they can post research assignments, books or journal lists references to on-line materials. Researchers can discuss problems and solutions could be proffered.
 - further provide greater opportunities for research collaboration and networking among lecturers spread throughout the world, thus national and international dimension of research issues can be studied as they can allow for communication with peers and experts around the world.
 - facilitate research in any discipline as they provide quicker and easier access to more extensive and current information through digital libraries that provide digitized full-text resources to learners and researchers.
2. The Internet can be used to do complex mathematical and statistical calculations which are important in research. They can be used for data manipulation and analysis. When used, it facilitates the completion of data on time and the performance of statistical analysis and makes accuracy more possible than when such calculations are done manually.

- The Internet also provides researchers with readily avenue for the dissemination of research reports and findings. Publication outlets include e-books, e-journals or through personal web-sites. It provides ready means for production of research reports.

PURPOSE OF THE STUDY

In the light of the foregoing, the purpose of the study, therefore, is to:

- Determine if lecturers in tertiary institutions in River State have access to the Internet facility.
- Ascertain whether lecturers use the Internet for research development.
- Determine constraints of lecturers from fully utilizing the Internet for research development.

RESEARCH QUESTIONS

- Do lecturers in the Tertiary Institutions in River State have access to Internet facility?
- Determine whether lecturers use the Internet for research development?
- What constraints debar lecturers from fully utilizing the Internet for research development?

METHODOLOGY

The descriptive survey design was used for this study. The design concerns itself with ascertaining and establishing facts or pieces of information at the time of the research and presenting such facts as they are. Lecturers in all tertiary institutions in Rivers state constituted the population for the study while the sample comprised of 200 lecturers drawn from three of the institutions. A questionnaire titled” Determining Internet Literacy among Lecturers (DILL)” was developed and used for the study. The DILL questionnaire consists of three sections A, B and C with a total of 39 items. Section A was designed to elicit personal information from the respondents such as name of institution, academic status; department, highest qualification e.t.c Sections B and C were meant to elicit information from the respondents on their access to the Internet and their uses for research development respectively. The items in section B were responded on a Yes or No basis while the items in section C required the respondents to tick where applicable. Data analysis was carried out using simple percentages to answer research questions earlier raised.

DATA PRESENTATION AND ANALYSIS

Research question 1: Do lecturers in the Tertiary Institutions in River State have access to Internet facility?

Table 1 below, reveals that 12.5% of lecturers have access to Internet facility through Internet café, 7.5% access the Internet at work, 32% at home and only 6.5% at the University ICT centre. 63% learnt to use the Internet by themselves (self-learning), while 25% combined self learning with training from an Internet café. Only a small proportion (4%) was trained by their Institutions.

Table 1: Determining Lecturers’ access to the Internet facility

S/N	ITEMS	No.	%
1	I access the internet through:		
	a) Internet Café	25	12.5
	b) Workplace	15	7.5
	c) Home	64	32
	d) University ICT centre	13	6.5
	• a, b and d	24	1.2
	• a and b	16	8
	• b and c	16	8
	• b and d	3	1.5
	• c and d	24	12
2	I learnt to use the Internet through	8	4
	a) Training from my University		
	b) Training from a private Internet cafe	16	8
	c) Self - learning	126	63
	d) b and c	50	25
3	Choose the number of years you have been using the Internet	72	36
	• less than 2 years		
	• 3-5	41	20.5
	• 6-8	36	18
	• 9-11	19	9.5
• 12 and above	32	16	
4	Choose the number of hours per week you use the Internet	68	34
	• less than 2 hours		
	• 3-5	68	34
	• 6-8	28	14
	• 9-11	11	5.5
• 12 and above	25	12.5	
5	Select the features of the Internet you use often	96	48
	a) Electronic mail (E-mail)		
	b) Internet Relay Chat (IRC)	-	-
	c) Search sites	64	32
	d) Mailing lists	14	7
	e) Usenet Groups	2	1
	f) a and c	24	12
6	Select the Internet search sites you use often	10	5
	a) MSN		
	b) Yahoo	48	24
	c) Google	50	25
	d) Open Directory	6	3
	e) a and b	9	4.5
	f) a, b and c	7	3.5
	g) b and c	70	35

Thirty-two percent (32%) of Lecturers have spent less than 2years using the Internet. 20.5% have used for 3-5 years, 18% for 6-8 years, 9.5% for 9-11 years and 16% for 12 years and above. Similarly, 34% of lecturers spend less than 2 hours using the Internet, another 34% spend 3-5 hours and 12.5% spend 12 hours and above per week respectively.

E-mail happens to be the most common Internet feature used by Lecturers. This can be seen in table 1 above (item 5a). The next Internet feature that is often used is search sites (32%). The search sites most commonly used are Google (25%), yahoo (24%) and a combination of Google and yahoo (35%) respectively.

Research question 2: Determine whether lecturers use the Internet for research development?

Table 2: Determining Lecturers use of the Internet for research development

S/N	ITEMS	YES		NO		TOTAL
		No.	%	No.	%	
1	I use the Internet for research work	200	100	-	-	200
2	I have an e-mail address	152	76	48	24	200
3	I use e-mail to receive and send messages for research purposes.	136	68	64	32	200
4	I belong to a mailing list such as research groups, research journals, National associations, International associations	160	80	40	20	200
5	I have been using my mailing list to get information for research purposes.	120	60	80	40	200
6	I belong to a Usenet group	16	8	184	92	200
7	I have been using my Usenet group to get information for research purposes.	16	8	184	92	200
8	I use Internet chat rooms for research purposes.	8	4	192	96	200
9	I only use the Internet social networking sites such as Facebook, Twitter, YouTube, MySpace.	-	-	200	100	200
10	Choose the number of hours per week you use the Internet for RESEARCH purposes only					
	• less than 2 hours	80	40			
	• 3-5	56	28			
	• 6-8	40	20			
	• 9-11	-	-			
	• 12 and above	24	12			

From table 2 above, the total number of lecturers sampled (100%) use the Internet for research work. Sixty-eight percent (68%) use their e-mail for research collaboration, 80% belong to different mailing list but only 60% use their mailing list for research collaboration. Eight percent (8%) belong to Usenet groups and use their groups for research collaboration. Only 4% use Internet chat rooms for research, 40% of the respondents spend less than 2 hours using the Internet for research work while 28% spend 3-5 hours, 20% spend 6-8 hours, and 12% spend 12 hours and above respectively.

Research question 3: What constraints debar lecturers from fully utilizing the Internet for research development?

Table 3: Constraints of lecturers from fully utilizing the Internet for research development

S/N	ITEM	no.	%
	Identify your major constraint to using the Internet		
1	Low level of computer literacy	16	8
2	Low level of Internet literacy	20	10
3	Lack of access to Internet facilities	32	16
4	Time	24	12
5	Finance	16	8
6	Irregular electric power supply	32	16
7	2 and 3	12	6
8	3 and 4	20	10
9	3 and 6	28	14
	Identify what would help you overcome the constraint		
10	To receive internet training from the University	22	11
11	To sponsor a training for yourself in an internet café	8	4
12	To receive a computer system that is connected to the internet from the University	30	15
13	To create more time for Research work	25	12.5
14	Regular electric power supply	49	24.5
15	Numbers 10 and 12 above	24	12
16	Numbers 12 and 13 above	12	6
17	Numbers 13 and 14 above	30	15

From table 3, 16% of lecturers identified lack of access to Internet facilities as their major constraint

to using the Internet for research development. Another 16% complain of irregular electric power supply as a constraint. Again, 14% identify both constraints mentioned above as the major factor inhibiting their use of Internet for research work while 12% identify time as their major constraint. In tandem with this, 24.5% believe that with regular electric power supply, they would be able to use the Internet for research work. While, 12.5% will need to create more time for research and 15% think they would spend more time doing research on the Internet if they receive an Internet linked computer system from their Institutions.

DISCUSSION OF FINDINGS

It is quite impressive that 32% of lecturers (table 1 item 1c) in tertiary institutions in Rivers State, Nigeria access the Internet at home. We live in an era of technological advancement and the lecturers in these institutions are joining the technology train. 12.5% access the Internet through Internet cafes while 6.5% use their institutions ICT centre. In a similar study conducted by Oghenevwogaga & Oghenevwogaga (2006) on the Impact of Internet on Research, out of 100 respondents sampled from Delta State University, Nigeria, only 4.3% access the Internet at home. 4.3% access the Internet from the

office, 88.6% from a cyber café, and 0.0% from the University's laboratory. It seems that lecturers prefer using Internet cafes to using the University's ICT centre (see table 1, items 1a and d). The reason could be that these ICT centres are also used by students. So lecturers may not find free computer systems when they want to use them. Only 30% of the lecturers have been using the Internet for less than 2 years. This is surprising because according to the Internet Society (ISOC 2010), by the year 1985, the Internet was already well established as a technology supporting a broad community of researchers and developers, and was beginning to be used by other communities for daily computer communications. This means for about 25 years the internet was made public, most lecturers in Rivers State Universities, Nigeria were not using it. The reason for this is not quite clear. Perhaps they needed time to learn all its features. Table 1, item 2c shows 63% of the lecturers learnt to use the Internet by themselves.

From table 2, all the lecturers (100%) sampled use the Internet for research work. Yusuf & Onasanya, (2004) cited earlier, mentioned that research is the major index of a lecturer's advancement. They equally enumerated the relevance of the Internet for research development. Similarly in the study conducted by Oghenevwogaga & Oghenevwogaga (2006) as cited earlier, 21.4 % of the 100 respondents used the internet for research and academic materials. The Internet features most often used by lecturers in Rivers State, Nigeria, are e-mail (48%) and Search sites (32%). But of the 76% who have e-mail, only 68% use it for research work. And while 80% belong to a mailing list such as national and International associations, only 60% use their mailing list for research collaboration. Only 4% use Internet chat rooms for research purposes. In a conversation with some of the lecturers, the researchers discovered that most lecturers see Internet chat rooms as a dangerous environment. Discussing the negative aspects of chat communication, MegaEssay.com (2010, par 2) says the main drawback of chat communication is that people cannot see each other and do not actually know each other. Due to chat anonymity, a lot of chat participants play with their identity. This may account for the low percentage of lecturers who use Internet chat rooms. The major constraints to using the Internet for research work as identified by the lecturers are irregular electric power supply and lack of access to Internet facilities. This agrees with the view of Ogunkunle (2005) that inadequate provision of infrastructure is a barrier to the use of ICT. Most tertiary institutions depend on generators for power supply and with the rising cost of petrol and diesel; this challenges prevent effective utilization of ICT. Regarding access to Internet facilities, the lecturers are of the opinion that an Internet connected computer system should be provided by their

University, they would be able to enhance their usage of the Internet for research development. The Punch, a Nigerian Newspaper, in its November 7 issue says lecturers should have access to modern teaching equipment and gadgets (Internet facility, etc) and be trained on how to use them. It mentioned internet facilities as part of these modern equipment and gadgets. Time is another constraint identified by 12.5% of the lecturers (table 3, item12), they agree that they need to create more time for the use of Internet for research work. In addition to teaching and supervising (undergraduates, masters and PhD students,) they also carry out other administration work (computing students' results, course adviser, etc). This leads to excess workload with little or no time left for research work.

CONCLUSION

Conclusively, we can agree that most lecturers in the tertiary institutions in Rivers State, Nigeria, use the Internet but they still need to learn how to fully utilize all the features of the Internet for research development. This is an aspect of Internet Literacy they must exploit. The lecturers should therefore take advantage of Internet technology to develop themselves.

RECOMMENDATION

The Government of Nigeria should carry out a comprehensive power and telecommunication sector reform in the country so as to have uninterrupted power supply and a functional telecommunication. Government (federal and state) should also provide functional ICT facility (Internet connected computer systems with appropriate software and hardware) for all lecturers in the Universities. .

Universities should organize Internet training for all Lecturers. This is very important. It will enable lecturers maximize the use of all Internet features.

University should provide adequate fund for the acquisition, usage and maintenance of ICT facilities. Heads of Departments should reduce excessive workload on the lecturers. Computation of results should be done electronically with the help of University ICT staff.

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