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Olubanke Mofoluwaso Bankole

University of Agriculture, Abeokuta, olubankebankole@yahoo.co.uk

Babalola Stephen Oludayo Mr

Federal Polytechnic University, Ilaro, olurbabs@yahoo.com

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Olubanke M Bankole
'Nimbe Adedipe Library
University of Agriculture, PMB 2240, Abeokuta
Ogun State, Nigeria
olubankebankole@yahoo.co.uk

Stephen O Babalola
Federal Polytechnic Library
Ilaro, Ogun State, Nigeria

Introduction

The convergence of information and communication technologies as typified by the Internet is increasingly having more influence on all aspects of the society as it has become an integral part of the daily lives of many people. It has had a transformative impact on the mode of information sharing and access globally. Information and knowledge disseminated through the slow process of oral communications or with paper materials can now be transferred rapidly from an individual to an infinite number of users through a number of media and formats. The Internet is the fastest growing communication technology and has emerged as a major source of information that connects people, data and other computers, reducing the world to the much talked-about *global village*. Bane and Milhemi (1995) described the Internet as the premier networks, everyone connected or as unmanaged web of computer plasma. Technically and functionally, Hargittai (1999) defined the Internet as a worldwide network of computers, and a network of people using computers that make vast amounts of information available. Amichai-Hamburger and Hayat (2010) described the Internet as the creation of a continuous stream of computers linked together to form one grid, which enables interaction among hundreds of millions of people browsing the net.

Whereas the television revolution reached 50 million viewers in 13 years, the same feat was attained in only four years by the Internet (Molosi, 2001). Yunus and Khayal (2000) posited that if there is only one force that is transforming peoples lives and that holds promise to deliver tumultuos impact in the future, it is Internet. To underscore the increasing reliance on the Internet, Huttner (2007) posited that without the Internet, planes would not fly, financial markets would not operate, supermarkets would not restock, taxes would not get paid and the power grid would not balance the supply and demand for electricity. Aqil and Ahmad (2011) averred that the Internet places information on our finger tips and that it is everywhere, knocking at our door, making our life easy and smooth. Adomi (2005) noted that the Internet has profound

implications for African countries such as Nigeria as it has the potential to positively impact on the social, political, educational, technological and other spheres of lives of its people.

The education sector was among those that first embraced the use of Internet, and it has continued to broaden the breadth and depth of opportunities within institutions of higher learning worldwide. The Internet serves as a useful tool in support of the various educational activities that ranged from research to teaching. Anderson and Reed (1998) noted that the Internet technology and computers has made it possible for students to be active learners and allowed instructors to be facilitators. Jackson, et al. (2011) remarked that the Internet will level the educational playing field due to its availability to everyone, everywhere, and any time, irrespective of gender, race/ethnicity, income or other socio-demographic characteristics. Thus, the Internet is a vital tool that will propel University education to greater heights as the world move further into the knowledge-based economy.

Universities worldwide now invest a lot on internet access because it reduces the time between the production and utilization of knowledge; improves co-operation and exchange of ideas with fellow researchers in other institutions, regions or countries, furthers the sharing of information; and promotes multidisciplinary research. Bon (2007) states that the Internet can substitute for expensive hardcopy libraries, by availing students' access to scholarly information resources. Today, survival in academics without the Internet is hardly imaginable. The Internet has found useful applications in online data repositories, library catalogues, journals, news services, student and financial administration systems, online supported or solely online conducted teaching, as well as in digital communication with fellow students and lecturers. Other contemporary uses of Internet by students include purchasing, entertainment, and even dating. The investigation of how the Internet fits into the daily life of staff and students at educational institutions is worthwhile when one considers the ubiquitous and all pervasive communications tool features of the Internet. Consequently, studies have been carried out in many places to understand how University students use the Internet, the purposes for which the students use the Internet, the search engines used, their Internet skills as well as problems that hinder efficient Internet use.

The Internet is very useful to university students and staff in Nigeria because it enables them to have access to timely, accurate and relevant information that cannot be obtained from library shelves. Chan and Fu (2009) noted that Internet searching helps university students to boost their intellectual development and job preparation. Due to the endless nature of information resources on the Internet, libraries are increasingly investing in provision of Internet services and resources to enable their clients have better access to the information. Lyon (1998) states that Internet connections now constitute a highly visible service in every library and that the librarians and their clients have embraced it in their daily work. Academic libraries now run information literacy courses to educate faculty members and students on skills to access, retrieve and evaluate information resources from the Internet. Qunqing (2004) referred to the Internet as 'a large encyclopedia' or 'a library without walls' for its abundant information.

The investigation of pattern of Internet use by faculty and students could be important sources of information to an institution's management regarding the development, management and evaluation of their information technology projects. This article aims at assessing the Internet pattern of undergraduate students of Olabisi Onabanjo University, Ago Iwoye, Ogun State, Nigeria (OOU), and to discover the constraints faced by the users in assessing the Internet with a view to making suggestions for its improvement.

The specific objectives of the study were:

- to discover the level of access and pattern of use of the Internet by the students of Olabisi

Onabanjo University, Ago Iwoye

- to determine for which purposes the Internet was being used by the students
- to discover the extent of use of the various Internet based services and resources by the students.
- to identify the problems faced by the students regarding access and use of the Internet.

The findings of this study are significant as it will identify and recommend practical improvement measures for efficient utilisation of Internet facilities by the University students.

Literature Review

In the drive of higher educational institutions to promote the use of information and communications technology (ICT), the role of the Internet cannot be over emphasized as it makes it possible for lecturers, researchers and students to have access to non-traditional information sources from any part of the globe. University students browse the Internet to have access to educational materials for research, instruction, and literature searching and to serve as a source of information in meeting other needs (Hannah, 1998). A review of related literature shows that several studies have been conducted on use of Internet resources by students, research scholars and academic staff of academic institutions worldwide, but no in depth study has been reported on the use of Internet in the University under study. This study was therefore carried out to ascertain the current status of Internet use by students of Olabisi Onabanjo University, Ago Iwoye, Nigeria.

Jagboro (2003) found that Internet was the fourth most important resources for materials among the postgraduate students with respondents using the Internet to access research materials and for email. The study concluded that the use of Internet for academic activities would improve significantly with more access in departments and faculties. Omotayo (2006) studied Internet use by students of Obafemi Awolowo University, Ile Ife, and found that 89.9% of the students used the Internet, access point being mainly through the cybercafés and the major hindrances to efficient Internet use included slowness of the server and payment for access time. Ojokoh and Asaolu (2005) studied the internet access and usage by students of Federal University of Technology, Akure and found that only 3.4% of the respondents were not using the Internet. Cybercafés were the most frequent source of Internet access, and most of the respondents acquired Internet skills through teaching by friends. Anasi (2006) investigated the pattern of Internet use by students of the University of Lagos and found low use of Internet among students from Law and Education, though Internet use had very high impact on their academic career.

Mishra (2009) studied the use of Internet at the University of Maiduguri, Nigeria. The findings showed that Internet was very important for 60.8% of the respondents, with 74.6% using the Internet for research; 71.5% mentioned Google as their preferred search engine and concludes that necessary facilities should be put in place for faculty and students to make optimal use of information resources available on the Internet.

Internationally, reports abound in literature on Internet use by University students. Robinson (2005) examined Internet use among African American college students in US historically Black Colleges and Universities. The findings showed that most of the students (76%) had used the Internet for more than three years, access points being at school for 49% or at home for 47%, an average of two hours per day was spent online and the main purpose of Internet use was to learn and find school resources. Kaur and Manhas (2008) conducted a survey on the use of Internet services and resources by students and teachers in the engineering colleges of Punjab and Haryana states of India and found that all the respondents make frequent use of the Internet because they gained access from either college or at home. More than 75% of the respondents' use the Internet services for educational and research purposes. Google and Yahoo search engines were more widely used than other search engines. Malik and Mahmood (2009) conducted a study on web search behaviour of students of University of the Punjab. The study found that 59.5% of the students used the Internet to search the materials for their

information needs at home, 25% at university, 15% at both home and University and 0.5 % at some other places. The majority of the students (67.5%) used the Internet daily; 72.5% of the population used the Internet for research, 76.5% for education, 68% for entertainment, 18.5% for sports and 6% for shopping purposes. Google was the most frequently used search engine by 97%, followed by Yahoo's (72%). The constraints faced by the students included slow speed, overload of information, irrelevant information, and poor quality.

Methodology

The study employed a descriptive survey method that utilized a questionnaire tagged 'Internet use by Students of Olabisi Onabanjo University, Ago Iwoye' as the major data collection instrument from March to April, 2010. The use of questionnaire was favoured as the main instrument over other research methods considered, because it would enable information to be gathered from several students, unlike other options, such as interviews, that would limit the sample size. The target population of this study was the full time undergraduate students of Olabisi Onabanjo University, Ago Iwoye, Ogun State, Nigeria in 2009/2010 session (n=17,500). A sample of 1,120 participants was chosen using the stratified random sampling technique to cover the 10 faculties/colleges in the University. The questionnaire was self-administered to students in the lecture rooms. This method of questionnaire administration has been found to produce high response rate (Oppenheim (1992). The students were informed before completing the questionnaire that the forms were anonymous and that there is no information in the questionnaire that could identify any individual student. Selected students in each Faculty (three per Faculty) were interviewed to obtain further clarification on the grey areas.

Pilot Survey

The pilot survey was conducted by administering the draft questionnaire to 40 students that did not form part of the final study to gauge the effectiveness of the questionnaire. The results from this study resulted in the revision of the questionnaire to enhance its clarity and comprehensiveness.

Data Analysis

The data collected was analyzed with descriptive statistics using the Statistical Package for Social Sciences (SPSS) software.

Data Analysis and Discussion

Demographics

Of the 1120 participants, 1066 respondents returned usable questionnaire giving a response rate of 93.1% which formed the basis for the analysis. The male respondents were 491 (46.1%) and females 575 (53.9%), with the age range of 17 to 31 years (mean of 22.3 years). The distribution of the Faculties of students is as shown in Table 1, with majority of the respondents coming from the Sciences (24.8%), and the least from Medicine (4.1%). One hundred and ninety seven respondents (18.5%) were in 100 Level, 200 level, 251 (23.5%); 271 (28.4%) were in 300 Level, while those in 400, 500 and 600 Levels were 347 (32.6%).

Table 1. Distribution of respondents from the various Faculties in Olabisi Onabanjo University, Ago Iwoye

Colleges/Faculties	Frequency	Percentage
Agricultural Sciences	84	7.9
Arts	101	9.5
Engineering	79	7.4
Medicine	44	4.1
Science	264	24.8
Social and Management Sciences	187	17.5
Education	97	9.1
Law	80	7.5
Basic Medical Sciences	84	7.9
Pharmacy	46	4.3
TOTAL	1066	100

Computer Training

The ability to use computer is important for accessing the Internet. The participants were asked to indicate if they had received training in computer skills, and if so, where the training had taken place. The results indicate that less than half of the respondents (44.4%) had undergone training, while 51.0% of the respondents indicated that they did not.

Table 2 shows that 36.8% of the students had the training in commercial computer centres while 20.0% mentioned that it was part of the curriculum of their secondary education and 16.4% cited that it was part of their undergraduate curriculum. It is also worth pointing out that few respondents (9.5%) had undergone up to two types of training.

Table 2. Location of computer training (multiple answers were permitted) (n=1066)

Location	Frequency	Percentage
No formal training	544	51.0
Part of Secondary education	213	20.0
Part of undergraduate curriculum	175	16.4
Commercial computer centers	408	36.8
No response	49	4.6

Access to Personal Computers

The students were asked to indicate whether or not they had access to personal computer. Two hundred and fifty two respondents (23.6%) had access to personal computer, while 786 respondents (73.7%) did not have such access and the rest 2.6% did not indicate their access to PC. Access to personal computer should be an important facilitator for the use of Internet as those with personal computers could at their convenience revisit information downloaded from the Internet multiple times, and this would motivate them to use it more. The proportion of students with personal computers is far less than 48.9% reported among students of Ludhiana, India (Arora,2003), and 85% among undergraduate students in the US (Caruso and Smith, 2009). The explanation for lower proportion of students having computers in this study could be due to cost and affordability.

Use of Internet

The participants were asked whether they had used the Internet, and almost all (1041, 97.6%) indicated that they had accessed the Internet, leaving a small number of 25 respondents (2.4%) that indicated they

had not. Of the 25 students that never used the Internet, 21 (84%) of them were fresher's (100 Level) students. It is worth to note that all the 25 students that had not accessed the Internet indicated they did not have access to personal computer. The reasons provided for non use of Internet in Table 3 include lack of training on how to use it cited by 64%, followed by the high cost of Internet access (32%), lack of computer literacy (25%) and lack of time (20%). Asked on what would motivate them to use Internet, most of them indicated the need for training, and the provision of free access to Internet by their institution. Ehikhamenor (2003) had noted that in Nigeria, non use of Internet is often ascribed to problems of accessibility, ease of use and cost.

This study shows an increase in the rate of Internet adoption among Nigerian students when compared to 69% and 89.9% usage reported by Oyelaran-Oyeyinka and Adeya (2004) and Omotayo (2006), respectively.

Table 3. Reasons for non use of Internet (multiple responses possible, n=25)

Reasons for non use of Internet	Frequency	Percentage
Lack of computer literacy	7	28
Lack training on how to use Internet	16	64
High cost of Internet access	8	32
Lack of time	5	20
Lack of interest	2	8

Internet Experience

The results in Table 4 show that slightly over one third of the respondents (34.8%) had 5–6 years Internet use experience, followed by those with 3-4 years experience (24.3%). The respondents with 1-2 years Internet use experience were 18.3%, while 12.4% respondents had used the Internet for 7 years and above. About 7.3% started using the Internet less than one year. The mean Internet use experience for the respondents was 4.2 years.

Table 4. Internet Experience (n=1041)

Experience	Frequency	Percentage
Within one year	76	7.3
1-2 years	191	18.3
3-4 years	253	24.3
5-6 years	362	34.8
7 years and above	129	12.4
No Response	30	2.9
TOTAL	1041	100

Source of Internet Access

The results in Table 5 reveal that the greatest number of respondents (66.1%) accessed the Internet at cybercafés located outside the University campuses, followed by cybercafés within the University campuses (30.4%), and homes (19.5%). Relatively few participants used the Internet in other places, such as the library, the University ICT centre and Faculties/Departments and none of the respondents indicated having access through the computer laboratories. Twenty eight respondents (2.7%) did not provide answer on their point of access, thus their access points are unknown.

The students remarked in the interview that the University ICT centre which is privately owned was basically for students' e-registrations and that they only go there when they have problems with their registration for academic sessions. That they would consider Internet in the library as one of their top access point, but for the fact that there are only few Internet connection points in the library cybercafé. At

the time of this survey the library cybercafé with about 40 Internet connection points has not been in operation for months due to server breakdown.

It has been noted that in most of the higher institutions across Africa, students are compelled to patronise the private Internet service providers (cybercafés) due to limited provision of Internet facilities by their Universities (Ojedokun and Owolabi, 2003; Ojokoh and Asaolu, 2005).

Table 5. Source of Internet access (multiple access points possible) (n=1041).

Location	Frequency	Percentage
Cybercafés within institutions	316	30.4
Cybercafé outside the University	688	66.1
University Library	88	8.5
Homes	203	19.5
Computer laboratories	0	0
University ICT Centre	27	2.6
Departments/Faculties	64	6.1
Other sources	99	9.5
No Response	28	2.7

Acquisition of Internet Skills

The majority of the respondents reported that they acquired the skills for Internet use on their own through trial and error (48.2 %), while 20.8% learnt it through teaching by colleagues or friends (Table 6). Another 19.4% learnt the use through External Workshops/trainings and 9.1% learnt it through self study by reading books on Internet and information technology. Only 6.4% and 2.4% mentioned that they acquired Internet skills through workshops/trainings given by the University and the library, respectively.

The interview shows that the perceived relative cost of Internet use and the high cost of training courses compel students to resort to learning Internet skills on their own or from their friends. One interviewee remarked as follows: The orientation given to us when we first gained admission into the university was a one day show, and the librarian just introduced us to the use of library in less than one hour in lecture hall, and that is all I can recall of a librarian providing a guide for me in this University. The interview also showed that all students are made to offer a compulsory course in Information and Communication technology at 200 Level, which has been taught over the years theoretically. The students are not taught practically, thus all they do is to memorize the theories to pass the examination with the course having limited impact on their ICT skills.

The findings in this study that the knowledge transfer of Internet skills is mostly through personal communication channels (friends) and learning-by-doing agree with those by Ojokoh and Ashaolu, (2005) and Nazim (2008) that most of the Internet users acquire the skills in a very informal way such as learning by doing it on their own and from colleagues and friends. Rowley, et al. (2002) noted that though students could learn much from each other but ultimately such will be constrained by what their friends know. That the library has not been contributing much to the learning of Internet by students is in agreement with the study of Salaam (2003) that found that Nigerian University libraries were not making much impact in training programmes for students on use of the Internet. Bello, et al. (2004) asserted that lack of training constituted a major barrier to efficient use of Internet by Nigerian students.

Motivation in terms of University support and training are vital for students to efficiently utilize and reap the benefits from Internet use. Cheung and Huang (2005) found that support from University authorities as well as students skill and positive attitudes are important factors that promote the use of Internet among University students in the US. It is expedient that the University through the curriculum and the University library play prominent role in the organization of Internet skill building courses for students. The library needs to develop a training programme that is holistic in nature that would equip students with analytical skills and enhance their capability to adapt to the new technologies.

Table 6: Means of learning Internet use (multiple responses possible) (n=1041)

Variables	Frequency	Percent
Teaching by friends/colleagues	216	20.8
Self by trial and error	502	48.2
Reading books on Internet/ Information technology	95	9.1
Lectures/training offered by the University	67	6.4
Through Library/ Library Staff	25	2.4
External Workshops/trainings	202	19.4

Sources of Help

When asked on whom they consult when they need assistance on Internet use, more than one third of the respondents (38.0%) indicated that they do not seek assistance from anybody, while 29.7% mentioned friends and colleagues as source of help, 25.1% mentioned that they sought help from cybercafé operators, while 10.4% indicated they sought help from their lecturers, and only 1.5% obtained assistance from a librarian (Table 7). In the interview, it came out that the students seek assistance from friends and colleagues not because they are the most trustworthy, but they are the only readily available option. The students will prefer obtaining help from IT experts if they are readily available and from the librarian if they know they can offer such help. That the library as they were told at the orientation is basically a place for consulting and borrowing printed materials and that the Internet services available is just like what is obtainable in any commercial cybercafé. The students further stated that they could not ask for assistance from librarians because most of the time, they accessed the Internet outside the university campuses.

Table 7: Source of help when using Internet (multiple responses possible)

Source of help	Frequency	Percent
Friends/colleagues	309	29.7
Librarian	16	1.5
Lecturers	108	10.4
Cybercafé operators	261	25.1
Do not seek help	396	38.0
No response	21	2.0
TOTAL	1041	100

Frequency of Internet Use

The results in Table 8 show that almost one third of the respondents (32.0%) used the Internet once in a week, 25.6% used it 2-3 times per week, 19.5% used it daily and 13.8% monthly. Those respondents that claimed they rarely used the Internet constituted 6.7%.

Table 9 revealed that majority of the students (60.6%) spent 1-5 hours per week on the Internet followed by 23.8% that spent 6-10 hours per week, while 9.9% spent 11-15 hours weekly on the Internet. The average time spent by all the students was 4.6 hours per week.

The findings show that the students in this study spent limited time on the Internet in comparison to the Michigan African American college students' average of two hours per day on the Internet (Robinson, 2005) and 21.3 hours per week spent by the students in US on Internet activities for school (Caruso and Smith, 2009). The students remarked in the interview that they pay for access time, which of course limits the use.

Table 8. Frequency of use of Internet

Internet use	Frequency	Percentage
Daily	203	19.5
2-3 times per week	266	25.6
Once in a Week	333	32.0
Monthly	144	13.8
Rarely	70	6.7
No response	21	2.0
TOTAL	1041	100

Table 9. Time spent per week by respondents on Internet

Hours	Frequency	%
1-5	631	60.6
6-10	248	23.8
10-15	103	9.9
No response	59	5.7
TOTAL	1041	100

Activities on the Internet

Based upon activities identified in the literature review, a list of 13 activities was generated and respondents were asked to indicate for which of these purposes they used the Internet. Table 10 shows that majority of the respondents (90.6%) mentioned that they were using it for purposes of communication, 453 students (43.5%) were using it for doing class assignments, 343 users (32.9%) indicated that they were using it to update knowledge. About 27% states that they used Internet to supplement lecture notes given by their course lecturers, while 17.2% indicated that they used it for their research projects. Other uses mentioned by over 10% of respondents were to download free soft wares (12.7%), and for entertainment (10.4%). The uses mentioned by less than 10% of the respondents included seeking for scholarship opportunities, obtaining health information, travel arrangements, shopping/purchasing and for online banking. The interview shows that students use Internet for educational activities if they are referred to it by their lecturers or when they are specifically directed to do class assignments with materials from the Internet.

Table 10. Activities on the Internet (multiple responses possible)

Activities	Frequency	Percentage
To do class assignment	453	43.5
For research projects	179	17.2
To supplement lecture notes given by lecturers	278	26.7
To update knowledge/keep up with current development	343	32.9
For communication	943	90.6
To seek for scholarships	95	9.1
For entertainment	124	11.9
Health information	66	6.3
Current news/Accessing online newspapers	94	9.0
To download free software	128	12.3
Travel information/arrangements	36	3.5
Shopping/purchasing	29	2.8
Online Banking	21	2.0

Use of Internet Communication Tools

The students were asked to indicate the communication tools on the net, namely: e-mail, chatting rooms, newsgroups, web boards and instant messaging that they have used. Table 11 shows that the use of email dominated (87.0%), closely followed by 85.1% of them that browsed the WWW for information, then chatting (40.8%) and instant messaging (24.4%). The use of other services: Discussion groups, Web boards, TELNET, FTP, Frequently Asked Questions was by far less popular as they were each used by less than 10% of respondents.

It is obvious that the students make use of email, chatting and instant messaging while they rarely used discussion groups and web boards, TELNET, FTP and FAQ. This finding corroborates many studies such as that of Ajuwon (2003), Salaam and Adegboye (2010) and Nwezeh (2010) which have shown that e-mail is the major tool Nigerian students and other Internet users use, and they rarely make use of other tools like instant messaging, newsgroups and discussion boards. Even in developed countries such as America, Jones and Madden (2002) found that 62% of students used e-mail and about 29% use instant messaging as Internet communication tools.

Although Internet has multipurpose uses, it first started as a communication tool, thus it has attracted users first for that purpose. Wellman, et al. (1996) posited that the various benefits of email over other communication media include its being an asynchronous, bidirectional, groupware medium, that requires less social presence making it possible for users to have more control over when to read/respond, reply with equal ease to senders, reply to several others simultaneously, and interact with more diverse others than they would do in person.

That most of the students did not undergo any formal training in Internet use could have accounted for the observation that most of them used the Internet for email communication, and do not have the skills to use it for other purposes. The students revealed in the interview that they do not have the skills to use the underutilized communication tools identified in this study. Tadasad, et al. (2003) had observed that undergraduates have not been taking full advantage of the vast information on the Internet, because they lack adequate knowledge of its use.

Table 11. Use of Internet communication tools (multiple responses points possible)

Communication tools	Frequency	Percentage
E-mail,	906	87.0
World Wide Web (www)	886	85.1
Chatting,	425	40.8
Discussion groups	62	6.0
Web boards	23	2.2
Instant messaging	254	24.4
TELNET	24	2.3
File transfer protocol (FTP)	33	3.2
Frequently Asked Questions (FAQ)	58	5.6

Use of Email

The students were asked to indicate those that they used email to communicate with. The majority of the students used the email to communicate with their friends and family members (72.0%), and 46.0% indicated that they used it to communicate with their fellow students and colleagues (Table 12). About 10% mentioned using Internet to communicate with their lecturers. The interview with some lecturers indicated that most of them do not use email to communicate with their students with the excuse that this would have been possible if the university had provided Internet facilities for them in their offices free of charge. Furthermore the lecturers claimed that the students were many and that it will be very difficult for someone to venture into using email for communication. It further emerged that lecturers communicate with their final year students on research projects through physical contact and sometimes through telephone conversations and by text messages. This result contrast with that of Jones, et al. (2008) who found that the vast majority of college students surveyed in the US (84%) used Internet to communicate with professors.

Table 12. Those that the respondents used the email to communicate with (multiple responses possible)

Who email is used to communicate	Frequency	Percentage
Fellow students/colleagues	480	46.1
Lecturers	105	10.1
Friends/relatives	749	72.0
Others	189	18.1

Finding Academic Information

The respondents were asked to indicate the methods they used in locating academic related information from the Internet. Table 13 shows that majority of respondents (86%) browsed the Internet for information by using search engines, while 24.2% of the respondents typed the web address directly to locate information and only 2.5% indicated that they used free full text online resources for institutions in developing countries for gaining access to the required information from the Internet. The students remarked in the interview that they used Google to search for academic materials and that they are satisfied with the information obtained through these resources. That even though the library gave them a 30 minutes talk during orientation, the emphasis was on library print collections, and they could not recollect being introduced to sourcing for information through Internet from the library. The students mentioned that they used the library to consult and borrow printed materials, and to read newspapers. Other comments by students include 'I use search engines because they are what I am familiar with and they have yielded useful results on previous searches. The interview described search engines as 'tested, trusted and reliable'

The university library subscribes to two free online Science information databases: the World Health Organisation (WHO) Health Internetwork Access to Research Initiative (HINARI) and Access to Global Online Research in Agriculture (AGORA). These resources have made it easier for staff and students in science based disciplines to gain access to full text journal articles free of charge. It is surprising to note that only 8.3% of the students' use of free subscription databases such as HINARI and AGORA to retrieve information. Students continue to utilize material from the free Web, discovered via search tools such as Yahoo and Google.

The interview shows that the students have not at any time been informed of the existence of these databases by the University. Low (2003) had noted that students continue to use materials from free web through search tools such as Yahoo and Google because they do not know that subscription research databases offer high quality information that is not readily obtained from open Internet searches. Also Edem and Offre (2010) in a study carried out at the University of Calabar, Nigeria reported that the lack of knowledge of undergraduate students of the vast information resources available to them in their university libraries, make them to rely on publicly accessible Internet sites for their academic information needs. The OCLC (2005) study found that majority of college students though majority of College students believed that online databases (72%) and electronic magazines/journals (85%) were valuable sources of information, however, almost three quarters (72%) of them still selected a search engine as their number one source of information.

There is the need for the library to develop and run awareness programmes regularly and provide training on how to use the digital tools and other online resources available in its collection. It is also important for the University to impart the skills on the students by the use of various instructional tools such as handouts for specific databases, targeted bibliographic instruction in the lecture rooms before students embark on research project and by individualized consultations with library staff.

Table 13. Methods used for finding information related to academic activities from the Internet (multiple responses possible)

Methods for finding information	Frequency	Percentage
Through the use of web address	246	23.6
By the use of search engines	874	84.0
Though the use free subscription databases	86	8.3
Through the use of subscription databases	-	-
No response	36	3.5

Search Engines

The students were asked to mention the search engines used to locate information. Most respondents (78.9%) mentioned Google, followed by 45.4% that used Yahoo (Table 14). Another 26.7% utilized AltaVista while 19.8% used Scholar Google. The proportion of those that utilized the other search engines ranged from 7.3% for Northern Light to 3.5% for Excite.

The interview shows that the students believed that Google is straight forward and very easy to use and that once you put in your words, it produces results. That Google seems to possess everything they want and does not require special skill for its use. That Google will even go to the extent of correcting your spellings before searching.

That Google is the most used search engine is congruent with findings from a study conducted by Ndinoshiho (2010) in Namibia which found a marked preference for Google amongst students. The following reasons: wide coverage, regular updating and fastness in access and provision of links to other web sites according to Asemi (2005) and Nazim (2008) account for the wide usage of Google.

Table 14. Search engines used for locating information

Search engines	Frequency	Percentage
Google	821	78.9
Scholar Google	206	19.8
Yahoo	473	45.4
Alta vista	278	26.7
Northern Light	76	7.3
Ask.com	45	
Infoseek	58	5.6
Lycos	63	6.1
Excite	36	3.5
Hotboot	38	3.7
Metacrawler	65	6.2

Print vs. Internet

The respondents were requested to indicate their preference for either the print materials in the library or Internet when seeking for information. The Internet was preferred by 698 respondents (67.1%), while less than one third (303 respondents, 29.1%) indicated preference for print materials. The remaining 21 participants did not give their response.

For those that preferred print materials in the library, reasons given included, that you do not need to pay to use the library, that the information obtained on Internet are so vast that you find it difficult to determine credibility of each, that libraries have much more relevant materials of high quality whereas you will have to spend some time determining the credibility of information obtained from Internet, that you have to pay the cost of Internet services and could also be asked to pay before you are allowed access to certain documents on the Internet and that oftentimes, the slowness of server prevent you from downloading needed materials.. For those who prefer the Internet, reasons stated were the fact that it provides a faster and wider access to current up to date information which many times may be difficult to accomplish in library settings, that unlike the library, you will certainly obtain information on whatever you request for, that you can obtain information at your convenience and at any time unlike the library which has opening hours, that it is sometimes difficult and confusing searching for materials through library, Lenares (1999) reported that convenience, timeliness, and the ability to search text are the most important consideration in faculty's preference of electronic over print materials. Conversely, the ability to browse, portability, physical comfort, and convenience are the most important characteristics leading them to choose print over electronic resources.

That majority of the students prefer the Internet to the library confirms the reports of Ajiboye and Tella (2007) that the Internet was the most consulted information source by the students while the traditional library was rated as the third source of information. However, some studies such as Sharma, et al. (2006) conducted in Jammu, India which revealed that 75% undergraduates preferred textbooks for getting desired information.

Problems in Internet Use

The respondents highlighted several problems that they faced when using the Internet (Table 15). The majority indicated slowness of the server resulting in time wastages (50.0%), followed by the limited institutional Internet facilities (35.2 %), frequent power outage (27.0%) and high cost of usage (25.5%). Other problems cited by more than 10% of respondents include privacy concern in the use of Internet (14.7%), lack of training in basic Internet skills (14.0%), how to determine the authenticity or quality of information from the Internet (11.9%), insufficient technical support (11.8%) and difficulty in gaining access to full texts (10.2%).

The students revealed in the interview that the slow Internet connections increased the time spent on Internet and invariably the cost of usage is increased. That the non provision of free Internet facilities for them in the University unlike their counterparts in some neighborhood Universities that enjoy their intuitional Internet free of charge is a very serious impediment limiting Internet use. Similar constraints have been identified by other researchers in varying degrees (Omotayo, 2006; Luambano and Nawe, 2004). Omotayo (2006) found that the major barriers to efficient Internet use by students include slowness of the server and payment for the access time. Luambo and Nawe (2004) also observed that the slow Internet connections attributable to small bandwidth is a major factor hindering Internet access and use in Africa. High cost of connectivity and bandwidth and low speed Internet connectivity as noted by Echezona and Ugwuanyi (2010) poses a threat to African universities joining the information world.

Table 15. Problems faced by students in Internet use

Problems	Frequency	Percentage
Slow Internet connection	521	50.0
Limited institutional Internet facilities	366	35.2
Overload of information	102	9.8
Long time to view/down load	88	8.5
Frequent power outage	281	27.0
lack of training in basic Internet skills	146	14.0
Time constraint	78	7.5
Level of privacy	153	14.7
Difficulty in finding relevant information	67	6.4
Insufficient technical support	123	11.8
Difficulty in gaining access to full texts of journal articles	106	10.2
Authenticity/quality of information	124	11.9
High usage cost	265	25.5

Major Findings

The results show that less than half of the respondents (44.4%) had undergone one or more form of computer training, while 51.0% of the respondents indicated that they did not. The respondents had the training in commercial computer centres.

Most of the respondents (97.6%) had accessed the Internet, while the reasons for non use of Internet by 2.4% included lack of training on how to use, the high cost of Internet access, lack of computer literacy and lack of time.

Slightly over one third of the respondents (34.8%) had 5–6 years Internet use experience, followed by those with 3-4 year experience (24.3%) while the mean Internet use experience for the respondents was 4.2 years.

The greatest number of respondents (66.1%) accessed the Internet at cybercafés outside the University campuses, followed by cybercafés within the University campuses (30.4%), and homes (19.5%).

The majority of the respondents (48.2%) learnt Internet skills on their own through trial and from colleagues and friends (20.8%), and that the librarians do not play significant roles in imparting Internet skills on students

About 30% of the students relied upon their fellows and friends when they need assistance on Internet related problems while 25.1% sought help from cybercafé operators and 10.4% mentioned their lectures as source of help.

Most respondents accessed the Internet once in a week (32.0%), 25.6% used it 2-3 times per week and 19.5% of respondents accessed the Internet daily.

The majority of students (60.6%) spent 1-5 hours per week on the Internet followed by 23.8% that spent 6-10 hours per week, while 9.9% spent 11-15 hours weekly on the Internet.

Students used the Internet for a variety of purposes which include for communication (90.6%), doing class assignments (43.5%), to update knowledge (32.9%) and to supplement lecture notes (27%).

The most used Internet services was e-mail followed by those that browsed www, chatting and instant messaging.

The students used the email to communicate mostly with their friends and family members (72.0%), and 40.1% indicated that they used it to communicate with their fellow students and colleagues and only 10% mentioned using Internet to communicate with their lecturers.

Most of respondents (86%) browsed the Internet for information by using search engines, while 24.2% of the respondents typed the web address directly and only 2.5% used free subscription databases.

Most respondents (78.9%) used Google as the search engine to locate information; followed by 45.9% that used Yahoo, 26.7% utilized AltaVista while 19.8% used Scholar Google.

The Internet was preferred over the library by 67.1% of respondents, while less than one third (29.1%) indicated preference for library.

The students encountered many problems in their use of Internet, the major ones being slowness of the server, limited institutional Internet facilities, frequent power outage and high cost of usage.

Recommendations

This study has shown that although, the use of Internet is widespread among students of Olabisi Onabanjo University, Ago Iwoye, however, the University authority is yet to provide access to students through the institutions infrastructures. It has become imperative for the university authority to address a number of issues for the students to optimally reap the benefits derivable from Internet use. It is obvious that harnessing the benefits of Internet technology for learning will lead to the University becoming more competitive and attractive to prospective students. Arising from the findings, the following suggestions are being put forward for the University to motivate students' use of Internet.

There is the need for the University to develop clear ICT policy framework that will support the development of ICTs at the university in general; and ensure that the University community (both staff and students) are exposed to training on an ongoing basis so that they will know appropriate techniques to use for obtaining information as against the current practise of learning to use it through adhoc approaches or informal sources.

The University should provide Internet access to students within the University campuses in its faculties/departments, computer laboratories and e learning centres as well as make available more computers and improved networks in its library as the study found that the high cost of accessing the Internet through the commercial cyber cafes limits its use. The provision of free access will increase the time spent on Internet by students as studies have shown that students tend to spend more time on Internet when access is free. The university is already addressing Internet service provision and as at the time of preparation of this report, it has already commissioned an IT centre to complement a privately owned IT centre in the University. The construction of another ICT centre in the University is currently being sponsored by the giant oil exploration company Shell BP.

The library should train and retrain its librarians on ICT so that they could possess relevant skills for present day work demand and to be able to guide students on the use of Internet services and resources. This is in line with the suggestion of Anao cited in Emojorho and Nwalo (2009) that librarians must retool and re-strategize, as failing to do these; they will lose ground, decline in relevance and face the possibility of extinction.

The students should be made to have increased access to personal computers since this facilitates the use of Internet technology. The University could initiate schemes that assist students to acquire their own PCs such as the programme by Cooperative Information Network (COPINE) cited by Awoloye, et al. (2008) through which PCs are sold to students of OAU, Ife at affordable prices.

It is imperative for the University to take steps that will make Internet use more familiar to students by regularly organising training programmes to improve the competence of students on Internet use. The compulsory ICT course offered by all students in the University should be backed up by computer-based learning packages with practical examples. The University in collaboration with the Department of Computer Science and the Library should establish a formal information Literacy programme that will address the continuous impartation of relevant skills that students need to effectively access and use available Internet resources and services. The University library could be proactively involved in the training by incorporating Internet use into library instructions given to freshers at orientation programmes. The library needs to evolve strategies to promote its services such that students will be aware of what is in the library and also be informed of the benefits that they stand to derive from patronizing the library cybercafé particularly the possibility of students obtaining freely copies of journal articles through free subscription databases such as AGORA and HINARI.

The library should on a regular basis publicize the available e-resources by pasting it on its notice boards and in the university bulletins and newsletters. Other strategies that could be used to create awareness include telephone calls, displays and talks. It should also subscribe to some e-journals and electronic databases to make it more attractive to the University community.

Marketing of information materials entails the identification, anticipation and provision of users needs. Thus, the library in the University needs to regularly monitor and evaluate the use of Internet services and resources by its clients as it has been doing for its printed materials by regularly carrying out user studies. To encourage students to use the Internet more for academic activities, lecturers should give students assignments that will require browsing for information on the Internet. The lecturers should further encourage students to always seek for additional information on the Internet to compliment their lecturers' notes.

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