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Internet Use by Students of Faculty of Science in Two Nigerian Universities

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Introduction

Internets are loose amalgamation of computer networks interconnected worldwide through several backbone networks (Adomi, 2008). It emerges as the educational tool by being a good source of getting the right information and solution to problems in an academic environment. Core research findings have been traced to the universities and application of these innovations has resulted in tremendous gains to country's economy according to Awoleye, Siyanbola and Oladipo (2008). No wonders, a number of universities in Nigeria are now making emphatics moves to improve on their information and communication policies.

Internet appearance in higher education was used as a tool for researchers to communicate and share project data (Jagboro, 2004). Though, it has some drawback as privacy problem, difficulty to search and to find relevant information. Yet, it is more informative, relatively fast and accessible 24 hours a day. Internet has a wide base that allows access to an enormous range of research information either as full publications, reports, summaries or abstracts (Penny, 2006). The use of Internet (if maximized) plays a major role in helping undergraduate researchers' access large number of materials from different parts of the world (Ifeoma, 2010). With its advent, lecturers and students can work together without physical interaction between each other and achieve the same objective with that of traditional way of studying in higher institution. Lecturers exchange ideas and communicate effectively since teaching, learning and research is now made easy with the Internet.

For the developing countries like Nigeria to grow and attain its economic and social status, such country must be fully ready in strengthen and empowering its academic institutions, both in science and technological capacity. Hence, the students in their respective field will need an easy, reliable and interactive means of accessing and retrieving information without wasting much time. While the use of this Internet is greatly depends on some associated factors such as purposes, students experience, locations, Internet facilities and services available, among others on academic pursue of

the students in their institutions.

Literature Review

The Internet is acknowledged globally as a technology dominated by young people, and particularly students who are more inclined to exploit Internet resources for education, social interaction and entertainment (Salako and Tiamiyu, 2007). Shitta (2002) posits that Internet is a communication super highway that links, hooks and focuses the entire world into a global village, where people of all races can easily get it touch, see, or speak to one another and exchange information from one point of the globe to another. In library, Lancaster and Sandore (1997) in Ifeoma (2010) noted that Internet provides a medium of communication that has extended the potential of libraries' interaction beyond physical library to users, colleagues and other professional activities and relationship with library users. However, the use of these Internet resources was therefore studied by several researchers across the globe and Africa inclusive. Chandran (2000) conducted a study at S. V. University, Tirupathi, which indicated that a majority of the respondents used Web and e-mail services of Internet. The study further showed that more than 25% of the respondents used the Internet for 2 – 3 times a week, while the purposes of using the Internet were for communication and information gathering.

Similarly, Kaur (2000) surveyed the use of Internet facility at the Guru Nanak Dev. University, Amritsar. The findings revealed that all respondents used search engines to browse the required information and majority faced the problem of slow Internet connectivity. The result of the study further indicated that more than two-third of the respondents confirmed Internet were time saving, easy to use, more informative and more preferred. Staff and students in academic community enjoy Internet as a result of the facilities it offers as noted by Ikoro (2002) in Anunobi (2006) to include; e-mailing, audio broadcasting, telex/video conference, World Wide Web browsing, telephoning, news and discussion/chart group facilities, e-books storing. Internet as affirmed by Awoleye, Siyanbola and Oladapo (2008) is used for information development, enhances easy communication, improves academic performance, used as a researched tool, provides solution to assignments, gives information on entertainment & education, and a source of scholarship.

Jagboro (2003) carried out a study of Internet usage in Nigerian universities where opinion of 73 respondents was sought for. On specific uses of Internet, two-third of the respondents indicated that they used it for e-mail, to get research materials followed while course materials had 39.73%. The recorded low level of utilization of the Internet was attributed to the low level of connectivity and the high cost of cybercafé facilities. Moreso, Hanaur et al. (2004) surveyed a diverse community college to assess the use of the Internet by the students of health – related information. The surveyed showed that 83% Internet users had access to the Internet at their home and 51% of the respondents accessed Internet at the college or library.

In the same vein, Kumar and Kaur (2005) conducted a research on Internet and its use in the Engineering Colleges of Punjab, India. Questionnaire was employed to sample opinion of 474 students. It was revealed that 30.8% of the students have 2 – 4 years of experience in using the Internet followed by 1 – 2 years with 27.4%. A majority of the respondents used the Internet located at the college, use internet for education and research purposes, while half of them use it for communication purpose. More than half of the students use the Internet for consulting technical reports. It was further indicated that the major problem faced by the users was slow access speed of the Internet. In comparing Internet with conventional documents, 91.6% of the respondents noted that the Internet is easy to use, 89.1% agreed that it is informative and 88.1% felt it is time saving.

In a related study, Aseni (2005) assessed information searching habits of Internet users at Medical Sciences University of Isfahan, Iran. The findings showed that the respondents were obtaining quality information through the Internet and all the respondents were using the Internet. Recently, Oyedun (2007) conducted a study on

the Internet use in the Library of Federal University of Technology, Minna, and observed that most of the respondents claimed that through the Internet services in the library, they have improved considerably in their academic performance.

Recently, Salako and Tiamiyu (2007) surveyed the use of search engines for research by postgraduate students of the University of Ibadan, Nigeria. Copies of 327 questionnaire were analysed and it was found that most of the responding postgraduate students were aware of, and had become familiar with the Internet before the start of their postgraduate courses. On how they learnt to use search engine, more than half of the respondents were taught by friends, less than half learnt to use it by trial and error while a few were taught at a computer school. Salaam and Adegbore (2010) discovered that Internet facilities are available in all private universities studies in Ogun State, Nigeria. No restriction is placed on students Internet access and use by the university administration as opposed to that of Salaam (2003) who noted from its findings that access where restricted to staff only in Nigerian universities libraries. In view of the above literature, the study sought to examine the use of Internet by students of faculty of science in Nigeria universities.

Scope of the Study

The scope of this study is limited to the following:

i. The study focuses only on the undergraduate students that were in the School of Science in Federal university of Technology, Akure (FUTA) and those in Faculty of Science at Adekunle Ajasin University Akungba-Akoko (AAUA) but running full-time programme only.

ii. The study covered the science students that were in 400 level only in both universities in Ondo State. It is assumed that these limited numbers of students would represent the whole science students in the institutions under study.

Objectives of the Study

The main objective is to examine the use of the Internet by students of faculty of science in Nigerian university. Specific objectives are:

i. to find out the purposes of using the Internet;

ii. to determine how often the science students use the Internet;

iii. to ascertain science students experience in the use of Internet;

iv. to determine the location of the Internet facility most frequently used;

v. to examine the Internet resources mostly use by the science students;

vi. to study the Internet services mostly use by the science students;

vii. to investigate the problems encountered with Internet use;

viii. to find out the benefit of Internet over the conventional documents;

ix. to determine the influence of the Internet on science students academic efficiency; and

x. to ascertain the level of satisfaction of the science students towards the use of the Internet;

Research Methodology

The population for the study is 1200 i.e. FUTA: 539 (Source: Deans Office, School of

Science, 2009/2010) and AAUA: 661 (Source: collation from all the Departments in the Faculty, 2009). Two hundred and forty copies of questionnaire were administered in their lecture rooms with the help of four (4) research assistants. The exercise took three (3) weeks. Random sampling techniques were used while descriptive design was employed for the study. Of the entire questionnaire distributed, 215 copies were recovered where only 210 were correctly filled. This produced a return rate of 87.5%.

Analysis of Data and Discussion

Analysis of data collected was carried out using frequency and simple percentage presented in tables.

1. Purposes of using the Internet

Table 1 shows that 89% of the science students use the Internet for educational purposes, while 58% use it for entertainment purposes. From this finding, it is clear that Internet performed a good role in providing reliable information to majority of science students towards the achievement of their educational purpose. This agrees with the findings of Kumar and Kaur (2005). This shows that scientists still create time despite their tight schedule in relaxing and entertaining themselves using Internet.

Table 1: Purposes of using the Internet

Purposes	Frequency	Percentage
Communication	164	78
Education	187	89
Entertainment	122	58
Research	172	82

Source: Fieldwork (2010)

2. How often the Internet is used

Table 2 indicates that 44% of the respondents use the Internet 2 – 3 times a week followed with 34% of the respondents using the Internet 2 – 3 times a month. This revealed that most of the science students make use of the Internet probably because of the increase in availability and accessibility of the Internet facilities put in place within the school environment. Another reason may be that it is due to the nature of the student's discipline which is science, where they need to familiarize themselves with current and latest information from a series of research and new innovation that is taking place every day around the world.

Table 2: How often the Internet is used

Duration	Frequency	Percentage
Every day	40	19
2 – 3 times a week	92	44
2 – 3 times a month	71	34
Once a month	7	3
Total	210	100

Source: Fieldwork (2010)

3. Experience of Internet Use

Table 3 shows that 65% of the respondents have more than 3 years of experience in using the internet while the respondents with less than 1 year experience in the use of Internet were the least with 11%. The findings was in line with the surveyed of Kumar and Kaur (2005) as well as that of Salako and Tiamiyu (2007) which indicated that the students have the experience. This revealed that most of the students were aware of Internet and familiarized themselves with Internet use before gaining admission for their respective science programmes.

Table 3: Experience of Internet Use.

Experience	Frequency	Percentage
Less < 1 year	23	11
1 – 2 years	24	11
2 – 3 years	27	13
More > 3 years	136	65
Total	210	100

Source: Fieldwork (2010)

4. Location of Internet Use

Table 4 reveals the location from where the Internet is mostly accessed by the science students. Ninety – nine percent of the respondents accessed the Internet at cybercafé outside their campus, and only 19% access the Internet at the university library. This is contrary to the survey of Hanaver et al (2004) which showed that 83% Internet users had access to the Internet at their home. The choice of using the Internet facility located outside the campus more than others may be that it is more functional and reliable compared with those located on campus and at home.

Table 4: Most Frequently Used Location for Internet Browsing

Location	Frequency	Percentage
Resource Centre on Campus	103	47
At Home	68	32
Cybercafé outside Campus	207	99
University Library	40	19

Source: Fieldwork (2010)

5. Internet Resources Use

Table 5 has to do with the Internet resources mostly used by the respondents. E-journal has the highest responses of 83%, while projects recorded the lowest responses of 35% on Internet resources being used. The result depicts that majority of the students consult e-journal more than other resources available on the Internet. This shows that students in the field of science relied heavily on journals since it contains current and up-to-date information. This disagree with the study conducted by Kumar

and Kaur (2005) which stated that technical reports was the Internet resources mostly consulted by the students. But, the low responses recorded may be because the students have not started working on their selected project topic where more research will be carried on the Internet and web.

Table 5: Internet Resources Use

Duration	Frequency	Percentage
Conference	118	56
Database	118	56
E – books	94	45
E – journals	176	83
Project	74	35
Technical reports	114	54

Source: Fieldwork (2010)

6. Internet Services Use

It can be inferred from Table 6 that E-mail (Electronic-mail) 100% was the Internet services mostly use, while list services was seldomly used having 9% according to the respondents. The findings indicated that all the respondents used E-mail services more than others probably because it has facility that can be used to communicate with other Internet users electronically, such as receiving and replying of mail, sending documents via attachment and sending messages across the globe, among others. This is in consonance with the findings of Chandran (2000) and Jagboro (2003) where majority use the e-mail services. However, the list services might not be more needed or known by the science students.

Table 6: Internet Services Use

Internet Services	Frequency	Percentage
Archive	34	15
Bulleting	43	20
Chatting	133	63
E-mail	210	100
FAQ	72	34
FTP	43	20
List Services	19	9
Search Engines	121	58
WWW (World Wide Web)	182	87

Source: Fieldwork (2010)

7. Problems Encountered by the Users

Table 8 highlight the problems encountered while using the Internet by science students. Slow access speed was the leading problem with 96%, while difficulty in

finding relevant information has 62%. This slow access speed discourages a lot of users because it takes much of their time in retrieving the needed information. The findings was contrary to the research carried out by Kaur (2000) which concluded that slow Internet connectivity was the major problem faced by the Internet users. But, it agrees with that of Kumar and Kaur (2005).

Table 7: Problems Encountered by the Users.

Problems	Frequency	Percentage
Delay in Internet connectivity	156	74
Difficult in finding relevant information	122	62
High cost of access	134	64
Irregular power supply	172	82
It takes too long to view/down load page	140	67
Slow access speed	201	96

Source: Fieldwork (2010)

8. Benefit of Internet over Conventional Documents

Table 8 indicated that 99% of the respondents revealed that Internet is more informative when compared with conventional documents. While 98% said Internet is more useful and 97% felt that is it time saving. The findings agreed with the survey conducted by Kaur (2000) who discovered that Internet were time saving, easy to use, more informative and more preferred. Nearly all the science students believed that they obtained more information which was beneficial to their area of study. This might be as a result of various Internet resources such as scientific database, e-journals, e-books and technical reports available freely or through little subscription on the Internet.

Table 8: Benefits of Internet over Conventional Documents

Experience	Frequency	Percentage
Easy to save	192	91
Less expensive	173	82
More informative	207	99
More useful	206	98
Time saving	204	97

Source: Fieldwork (2010)

9. Influence of Internet on Science Students Academic Efficiency

Table 9 exhibits that 94% of the respondents believed that the use of Internet has increased their access to current information, while the least which was 62% claimed that it has contributed to increase in dependence on Internets. From this finding, it is clear that the use of Internet have positively influenced the academic efficiency of the respondents. This result collaborate that of Oyedun (2007) where the students claimed the Internet services have improved considerably their academic performance.

Table 9: Influence of Internet on Science Students Academic Efficiency.

Influence	Frequency	Percentage
Ease in research process	192	91
Exposure to global events	170	81
Exposure to scholarships	165	79
Increased access to current information Increased in dependence on internet	204	94
	131	62
Increased professional competence	186	89

Source: Fieldwork (2010)

10. User Satisfaction with Internet

According to Table 10, a total of 48% of the respondents felt partially satisfied with the Internet services, 27% claimed that they are least satisfied, while 24% admitted that they are fully satisfied. The finding is in conformity with that of Kumar and Kaur (2005) which noted that 53% of the respondents are partially satisfied with facilities provided by the engineering colleges.

Table 10: User Satisfaction with the Internet.

Satisfaction	Frequency	Percentage
Fully Satisfied	51	24
Partially Satisfied	100	48
Least Satisfied	56	27
Not Satisfied	3	1
Total	210	100

Source: Fieldwork (2010)

Findings

Major findings of the study are:

- A majority of the respondents (89%) use Internet for educational purposes, (82%) research purposes and (58%) for entertainment purposes.
- Nearly all the respondents use the Internet facilities located outside the campus.
- All the science students' use e-mails (100%) while 87% use WWW as the major Internet services.
- Slow access speed (96%) was the leading problem encountered by the respondents.
- A majority of the respondents feel that Internet is more informative, more useful and time saving in order of preference.
- Almost all the respondents (94%) believed that Internet have increased their access to current information, ease research process (91%) and improved their professional competency (89%).
- Most of the respondents are satisfied with the use of the Internet services.

Conclusion

Globally today, the use of Internet facilities for communication and sharing of knowledge can never be overemphasized. In Africa, the Internet uses had come to stay as it as gain a wider supports of acceptance in nearly all sphere of life. More importantly, in an academic environment where students need to search for more information outside their own institution, in order to enhance their academic performance. This study has examined the usage of Internet by students of faculty of science in Nigerian Universities. It was discovered that the uses of the Internet have positively influence the student's academic efficiency through increased in access to current information, ease research process as well as improved their professional competency. It was also revealed that science students preferred to visit cybercafé located outside the school campus to access information on the Internet. The reason for this could be that they are more functional and reliable than those available on campus and at home. However, it is clear that a majority of the students of faculty of science in Nigerian University are satisfied with the use of the Internet but noted that more still needs to be done.

Recommendations

Following the findings of this study, these recommendations are made:

- The Internet facilities located inside the campus should be made more functional to encourage Internet use by members of staff and students within the campus.
- Lecturers should encourage submission of assignments/term paper via e-mail.
- Access points should be install in all the buildings in the campus so that users can maximize the utilization of Internet services.
- There should be an alternate power supply in order to have a steady supply of electricity needed for effective Internet services.
- School management should collaborate with computer supplier to made available note-book and lap-top computer to students at a cheaper price. This will encourage students to own computer, access information and communicate with it at ease.
- Adequate space and facilities should be provided for those that want to make use of their own lap-top or note-book in the cybercafé, university library or resource centre. This will enable them to save relevant information discovered, to be use at a later date.

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