Internet Usage and Students' Academic Activities in Higher Institutions of Learning in Delta State, Nigeria

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Abstract
The researchers investigated internet usage and students' academic activities in higher institution of learning in Delta State. It had as its major objective to determine the level of internet accessibility among students of higher institutions in Delta State and to find out the level of internet usage for academic activities among students of higher institutions in Delta State. The researchers employed survey research design. The population of the study comprised 3,955 final year undergraduate students in Delta State. A sample of 1,223 final year undergraduate students was used for the study using a systematic random sampling technique. Questionnaire titled "Undergraduate Students' Use of Internet Resources for Academic Activities" was used as instrument for data collection. The data analysis used descriptive statistics mean and standard deviation using SPSS 23 expressing results in frequencies and percentages. The findings showed that university internet resources are accessible. Thus, it was further recommended that universities should create internet user education programmes and subscribe to more instructional databases.

Keywords: Internet, Internet Usage, Students' Academic Activities, Institutions of Higher Learning

Introduction
All throughout the world, the internet has now become a critical component of people's regular routines. There are numerous ways in which it might be useful; for example, it can help people improve the way they obtain information, conduct commercial transactions and communicate with others. Global internet users expanded substantially between 2010 and 2019 with an estimated 7.3 billion people on the planet having access to the internet by March 31, 2020 (Internet Users and Population, 2020). As a key source of information and a tool for increasing student output, universities have contributed to the rise in demand for internet connection on campus (Kirschner & Karpinski, 2011). As a result, students tend to access more information than the overall population. While just 59% of Americans use the internet, 86 % of American university students do so, according to Jones (2012). Internet use on college campuses has remained primarily an instructional support tool for students for the past fifteen years.

When it comes to undergraduate student research in developing countries like Nigeria, internet service has emerged as a vital aspect in ensuring students have access to up-to-date and accurate information resources. According to the World Almanac and Book

of Facts (2004), the internet has a greater impact on education than any other system today. Selcher (2005) found that the Web is an invaluable resource for academic research, particularly at the college and university levels. According to Lubans (2000), the internet has an effect on the academic work of undergraduate students. Students' written work has improved in quantity and quality, according to his observations. Students are enticed by the ease of access to the internet and often do not check the worth or quality of anything accessible on the online. Because there is no clear systematic classification or categorisation on the internet, it is a chaotic library. The students' ability to discriminate between content from peer-reviewed scholarly journals and the digital version of vanity press publications is a challenge. The Internet is essentially the world's computer network, which allows computers to communicate with one other and exchange data. Internet resources include the World Wide Web (WWW), electronic mail (e-mail), FTP, Chat, Archives, Gopher, Telnet, Statistical Packages, Virtual Library, Search Engines and Directories. All of these resources make research more efficient and effective. When it comes to the internet, Nworuh (2001) claims it is a series of electronic connections between computers that can be accessed directly from a personal computer that is programmed to share services, receive and distribute information among people with similar interests and needs through the use of the internet. In other words, it is the most effective means of speeding up the exchange of information. Using the internet to get current information services is advantageous, as Adeoti (2000) points out. Other uses include searching libraries for exciting new discoveries, finding out the most up-to-date information on everything from education and sports to medical and engineering to aerospace and agriculture, as well as literature on politics and the military. Consequently, undergraduate students need to be aware of the relevance of the Internet, have the ability to utilise the internet and use the internet resources available in universities to their advantage for their studies and research.

Most students appear to be having problems in their academic endeavours, especially when it comes to completing research, due to the multiple advantages of internet resources. As a result, students are unable to select research subjects, write the history of their research topics, evaluate the literature of the research activity and analyse their data because of these challenges (Nichols &Mellinger, 2007). According to Suresh (2010), students who do not use the internet to help them identify problems, design instruments, advance the frontiers of knowledge for their research work or conduct literature reviews would fail to produce high-quality research projects. Thus, the purpose of this study is to evaluate the link between internet use and academic activity among university students in Delta State.

Objectives of the Study

The objectives of the study were to:

1. Determine the level of internet accessibility among students of higher institutions in Delta State.
2. Find out the level of internet usage for academic activities among students of higher institutions in Delta State.

Theoretical Framework

Theories are very important in research as they direct researchers to critical areas to be observed (Asemah, Nwammuo & Nkwam-Uwaoma, 2017). Connectivism or connectivity theory was applied in the research. It was George Siemens, a Canadian thinker, who first proposed the hypothesis in December of 2004. Connection theory claims that learning (actionable knowledge) can be found outside of oneself (in an organisation or database) and is focused on connecting specialised information sets and the connections that enable us to learn more are more important than our existing state of knowledge. An individual, according to this theory, is capable of learning from inside. As a result, knowledge that originates with an individual is transformed and disseminated to an organisation and then, to a network where it can be accessed and improved by other individuals. The following is how Siemens (2005) describes it: Individuals have access to a network of knowledge that feeds into organisations and institutions, which in turn, feed back into the network. Through the connections they have made, this cycle of knowledge creation (from the individual to the network to the organisation) enables students to stay on top of developments in their subject. It is a connection between the work and the theory.

In order to access internet resources, the learner must have a specific set of equipment, such as computers, androids, iPods, notepads and many others, to link to them. Knowledge and competence are essential in order to access and retrieve information from the internet's resources. The student must be able to start, browse, link, choose, retrieve and use the programme. Both printable and nonprintable formats, such as audiovisuals, are available for the data. More current and thorough information may be obtained via internet resources than can be obtained from previous sources of information, as well as a time-saver for researchers because the internet is a constantly evolving entity.

Review of Related Literature

The internet is worldwide system of computer networks; that is "network of networks" that consists of millions of smaller domestic, academic, business, government networks, which together, carry various information and services, such as email, online chat, file transfer, search for information, ecommerce and online payment (Network Information Centre–NIC, 2013). Stallings (2006) defined internet as an interconnected network in which each of the constituent networks retains its identity and special mechanisms are needed for communicating across multiple networks. He further noted that internet is a collection of communication networks interconnected by bridges and routes. Katimani (2010) defined internet resources as information found on the net. The information resources may be through the World Wide Web (WWW) electronic mail (e-mail), newsgroups, online databases, online data analysis software, directories, social and interactive software. Similarly, Parameshwar & Palil (2010) stated that e-journals, databases, technical reports, e-books, reference documents and conference proceedings found on the net are internet resources. Operationally, internet resources refer to digitised documents like web pages, FTP files, messages and e-mails found on the net, which can be downloaded from a server over the internet. Hazelhurst & Sanders (2011) defined academic activity as any assigned work or project used to determine academic credit, including (but not limited to) an examination, writing project, take- home test or other project and any competition, activity or project

sponsored or sanctioned by the University in which the student participates for the purpose of gaining an academic advantage.

The internet is a major component of people's lives due to the support it provides in the way people communicate, perform business transactions and conduct research; it has also become a cause of concern as its overuse influences the way people live. Brice (2000) states that the internet provides access to a virtual library, electronic mail (email), the World Wide Web (www), social and interactive applications and FTP (File Transfer Protocol). Conn (2001) and Buchannan (2002), both reported that while e-books are available in nearly all universities around the world, but archives are scarce, especially in third-world countries and online data analysis software (ODAS) is nonexistent in their respective reports on the availability of e-books, archives and ODAS. Brabazon (2001) acknowledged the usage of virtual libraries and stated that they are the source of all information. Jagboro (2003) noted that electronic journals, magazines, news sources (such as blogs) and books (including e-books) present a new way to publish and distribute internet text. More students are using electronic journals and books to conduct their research. According to Palkovicova (2003), online chatting or computer-mediated communication, is a form of communication. Suresh (2010) has pointed out that students' perception of internet resources is not useful for problem identification. Students believe that internet resources are an important part of their literature reviews. According to Dinesh (2009), undergraduate students consider statistical tools for hypothesis testing and literature reviews to be extremely beneficial internet resources.

Cheung & Huang (2005) researched on the benefits of the internet for university education, the factors affecting its use, its impact on students' learning and how to foster a positive attitude in students towards using the internet by exploring the antecedents and impacts the internet has had on university education. The findings showed that perceived usefulness and enjoyment of the internet correlated positively with students' general learning and Internet usage. Suhail & Bargees (2006) investigated the effects of extensive internet use among 350 undergraduate students at a college in Pakistan who are regular internet users. The participants were given a 28 item questionnaire that included two questions focusing on study-related problems due to excessive internet use. The finding showed that in comparison with other negative subscales such as interpersonal or physical problems among others, fewer number of students reported educational problems due to internet use.

Asemah (2013) examined the influence of social media on the academic performance of the undergraduate students of Kogi State University. The rationale behind the study was to find out whether the exposure of the students to social media has effect on their academic performance. The findings showed that undergraduate students of Kogi State University, Anyigba, Nigeria, have access to social media and that their exposure to social media was to a very great extent. Findings also showed that exposure to social media has effect on the students and that the effect is negative. Findings also showed that Facebook was the most used social media by undergraduate students of Kogi State University. Based on the findings, the scholar concluded that exposure to social media by

the undergraduate students of Kogi State University has negative effect on their academic performance.

Methodology

In this study, a descriptive survey design was employed. Survey research as observed by Asemah, Gujbawu, Ekhareafo & Okpanachi (2012) is very useful when a researcher is dealing with a very large population. A researcher can collect data from a group of individuals using a survey design that includes a questionnaire. There are 3,955 undergraduate students from three public universities under study in the 2020/2021 academic year that make up the population. These are Delta State University, Abraka with a population of 1,572 students; Federal University of Petroleum Resources, with a population of 1,282 and Nigerian Maritime University, Okerenkoko with a population of 1,101 students. The information was retrieved from the academic planning units of the universities. A purposive sampling technique was used to get a total of 1,223 final-year students from the universities, which amounted to around 35% of the whole population.

Students' use of internet resources for academic purposes was examined in Section A. There were ten items in all. "Highly Used," "Used," "Moderately Used" and "Not Used" were the options that were given to the participants. Second, Section B focused on how undergraduate students might use online tools and resources for their academic pursuits. To find out if students could use online resources for their academic work, we asked them to answer nine questions about their Internet literacy. "Highly Possessed," "Possessed," "Moderately Possessed," and "Not Possessed" were among the possibilities available. The final component C was utilised to gather data on the correlation between students' internet use and their examinations, writing projects, and take-home tests. The responses "Strongly Agree," "Agree," "Disagree," and "Strongly Disagree" were used. 30 undergraduate students from Western Delta University, Oghara, were used to test the questionnaire before it was used in the study. Using Cronbach Alpha, the instrument's trial-and-error reliability scores were examined. .835 was obtained when data on instrument dependability were calculated, showing that the instrument is reliable for this study. The research questions shaped the way the data was organised. The research questions were answered using descriptive statistics. Researchers used mean and standard deviation to answer the topics they wanted to investigate. For the reader's benefit, the responses were arranged in tables for clarity and comprehension.

Data Presentation and Analysis

Table 1: Mean and Standard Deviation of Internet Resources Accessibility

	N	Mean	Std. Deviation	Remarks
Virtual library	1223	3.5740	.89778	Highly Accessible
Electronic Mail (E-mail)	1223	3.7070	.67069	Highly Accessible
World Wide Web (www)	1223	3.7751	1.03821	Highly Accessible
Electronic Journals (E-Journals)	1223	2.9410	1.11265	Accessible
Electronic Books (E-Books)	1223	2.5537	.98976	Moderately Accessible
Online data analysis software	1223	2.4154	1.06307	Not Accessible
University Websites	1223	2.8974	.89778	Accessible
Archives	1223	2.5637	.98976	Moderately Accessible
Social and interactive software	1223	3.5074	1.12856	Highly Accessible e
FTP (File Transfer Protocol)	1223	3.6410	1.11265	Highly Accessible
Valid N (listwise)	1223			

The table above shows that the virtual library is highly accessible via e-mail and the World Wide Web. Electronic books and archives are widely available, but online data analysis software is not, according to the survey respondents. As a result, undergraduate students in the universities can easily access internet resources for their research projects.

Table 2: Descriptive Statistics of Undergraduate Students' Perception

	N	Mean	Std. Deviation	Remarks
Problem identification	1223	2.2420	1.15294	Not Useful
Literature review	1223	3.5715	.90800	Highly Useful
Instrument development	1223	2.1218	1.00198	Not Useful
Statistical tool for hypothesis testing	1223	2.7626	1.17216	Useful
Advancing frontiers of knowledge for research work	1223	2.1725	.83725	Not Useful
Valid N (listwise)	1223			

As seen in table 2, each student's level of internet resource utilisation on their research assignment falls below 2.5. Unless students are using internet information to decide on statistical tools for hypothesis testing and literature reviews, it is safe to say that a majority of Delta State university students do not see the value of using internet resources to identify

research topic problems, develop instruments or advance frontiers of knowledge for their own research.

Discussion of Findings

The findings showed that the students of the select universities have easy access to a wide range of internet-based tools, including a virtual library system, e-mail, the World Wide Web, social media and FTP (File Transfer Protocol). As Brice (2000) stated, the internet provides access to a virtual library, electronic mail (email), the World Wide Web (www), social and interactive applications and FTP (File Transfer Protocol). In addition, the results of this investigation demonstrate that Delta State institutions have access to electronic journals and university websites. Resources are critical to student success.

According to a new study, e-books and archives are only modestly available and online data analysis software is not. This is in line with Conn (2001) and Buchannan (2002), who both reported that while e-books are available in nearly all universities around the world but archives are scarce, especially in third-world countries, and online data analysis software (ODAS) is nonexistent, in their respective reports on the availability of e-books, archives and ODAS. Students' utilisation of internet resources for research assignments was found to be lower than expected. According to the findings, e-mail, the World Wide Web and FTP (File Transfer Protocol) are among the most popular methods of communication among respondents. According to Brabazon (2001), internet is a source of all information. A modest amount of time is spent reading electronic journals and books. Jagboro (2003) noted that electronic journals, magazines, news sources (such as blogs) and books (including e-books) present a new way to publish and distribute internet text. More students are using electronic journals and books to conduct their research. Data analysis software, university websites, archives and social and interactive software are not utilised, according to this study. According to Palkovicova (2003), online chatting or computer-mediated communication is a form of communication.

The findings showed that respondents' internet resources for academic activities were not effective for problem identification, instrument building and extending the boundaries of knowledge for research work. As Suresh (2010) has pointed out, students' perceptions of internet resources as not useful for problem identification, instrument building and extending the frontiers of knowledge for research projects are negative. The findings further showed that students believe that internet resources are an important part of their literature reviews. The statistical tool for hypothesis testing on the internet is also viewed as valuable by pupils. According to Dinesh (2009), undergraduate students consider statistical tools for hypothesis testing and literature reviews to be extremely beneficial internet resource. His findings support the conclusion.

Conclusion and Recommendations

The study's findings lead the researcher to the conclusion that universities in Delta State have internet connection. However, the students lack basic internet abilities such as analysing files, unzipping files, copying and printing. Based on the findings and conclusion, the following recommendations are hereby given:

1. Students who use the internet for research should be taught basic skills such as how to start an existing programme, how to evaluate what information has been found and how to unzip files, copy and print.
2. Libraries should organise internet user education programmes for users to learn these skills
3. There needs to be appropriate financing for university information centres to provide more internet resources, such as electronic journals, online books and data analysis software and university websites and archives to fulfill the needs of the students and faculty.

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