ACCESSIBILITY AND USE OF THE INTERNET BY ACADEMICS OF TERTIARY INSTITUTIONS IN NIGER STATE

BY

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MLS/EDUC/49713/2005-2006

BEING A THESIS SUBMITTED TO THE DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE, AHMADU BELLO UNIVERSITY, ZARIA IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS IN LIBRARY AND INFORMATION SCIENCE

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June, 2011

DECLARATION

I hereby declare that this thesis entitled ***"Accessibility and Use of Internet by Academics of Tertiary Institutions in Niger State''*** has been written by me and it is a record of my research. It has not been previously presented for any higher degree and not being concurrently submitted for any other degree. All quotations are indicated and the sources of information are acknowledged by references.

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SURAKAT, I. Fatima Signature

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D a t e

DEDICATION

This thesis is dedicated to the memory of my late mother Hajia Salamotu Ibrahim who against thick and thin was always striving to make sure we all became something in life. At the time she would have been reaping the fruit of her labour, the cold hands of death snatched her. May her soul rest in peace.

CERTIFICATION

This thesis titled "***Accessibility and Use of Internet by Academics of Tertiary Institutions in Niger State"*** has been read and approved as meeting the requirements of Postgraduate School, Ahmadu Bello University, Zaria for the award of Master in Library and Information Science.

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ACKNOWLEDGEMENT

I wish to express my profound gratitude and appreciation to the Almighty God who has helped me this far.

I am particular grateful to my supervisors, Dr. K. A. Momoh and Dr. Kareem Sanusi whose relentless efforts, patience and assistance have given this thesis its present shape. I also express my gratitude to Mallam Ahmed Lemu, Baba Aduku, Professor Tijjani Abubakar, Ezra Gbaje and all the members of staff of the Department of Library and Information Science Ahmadu Bello University, Zaria for their invaluable contributions to the success of this work.

I would like to thank my husband, Dr. T. Y Surakat whose advice and directives were like sowing the seed of learning in me. Also a vote of thanks to my children whose company gave me the courage to move forward during the days of my struggle.

I acknowledge the constant advice of Dr. K. A. Sanusi, Mallam Baba Aduku, Malam Mohammed Lemu, Malam Umar Babangida, to mention but a few. The years spent receiving instructions from them have been worthwhile.

In addition, my colleagues and friends in the Department of Library Information Science deserve to be acknowledged Adedolapo Aboaba, Mrs Taiwo Akanbi, etc. They were all supportive morally and financially.

Similarly, I am highly indebted to Ms. Maryam Ajoke and Temitayo who painstakingly typed the manuscript. May Almighty Allah reward both of you abundantly.

ABSTRACT

This study was undertaken to explore the use of the Internet by academic staff in six (6) tertiary institutions in the Niger State. Investigation was carried out in respect of the kinds of Internet services available/accessible the various uses, preferences in the use of Internet satisfaction with the use of Internet, satisfaction with use and the provision of Internet facilities and factors influencing use. There was no study on the Internet use in Niger state necessitated this study. This study employed the survey research method which accommodates large population. There were a total of 2,634 academics in the selected tertiary institutions, out of which 600 respondents were selected for the study. However, only 572 of the lecturers completed and returned the questionnaires. The data collected were analyzed using frequency tables, mean, and percentages. The study revealed that all the selected tertiary institutions in Niger State are ICT compliant, and have Internet connectivity, although in varying degrees. Internet Chart Facilities, Discussion Groups, E-mail, and World Wide Web are available; whereas Video Conferencing, Tele-Conferencing, Internet Fax and E-Learning facilities are not available in all the tertiary institutions. The study equally revealed that some of the lecturers of these institutions have relevant technical skill for Internet use although majority of them actually utilize the E-mail and WWW facilities more than any other Internet resources. Moreover, they derive satisfaction from the utilization of Internet technology because it facilitates their teaching and research activities and finally. In spite of the under utilization of the Internet services in tertiary institutions in Niger state, academics agreed that the Internet has affected the quality and Quantity of their work. In the view of the above findings the research recommends that all the academics training/workshop on how to explore the full potential of the Internet should be organized for all academics of the institutions. The major challenges to the effective and full utilization of Internet facilities include: Erratic power supply, lack of standby generators hamper use of Internet, lack of skill on how to navigate on the Internet, etc.

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CHAPTER ONE

INTRODUCTION

1. 1 BACKGROUND TO THE STUDY

The relevance of Information and Communication Technology (ICT) to the social, economic, educational and scientific development of a society cannot be over emphasized. ICTs are those inventions which facilitate easy and speedy dissemination and retrieval of information on a large scale. These include radio, television, cable satellite, computer, telephone, Fax machines, the Internet, and so on. The various ICTs can be used for communication between man and man, between man and machine, between machine and machine, between individuals and government, between government and its various organs or agents, as well as between government and government. Of all these systems, the Internet appears to have revolutionized administrative, teaching and research activities of educational institutions, particularly in the technologically advanced countries. The Internet is a massive worldwide network of computers by which information (e.g. words, video clips, and other data) is stored on network servers. Each file has a unique location, address or file name which can be searched and accessed by Internet users in any part of the world where Internet facilities are available. This explains why the Internet is described as the "information superhighway" which has the capacity to transform the way in which information is created, manipulated, stored, retrieved, transferred and utilized. In other words, the Internet is the single most powerful electronic information resource that ever existed; and it is, indeed, the greatest wonder of the 20th Century (Neil, McKnight & Solomon 1995; Bruce 1998; Oyinloye 1998; Oloruntoba & Bolarinwa 2001; and Oni 2005).

With particular reference to the education sector, the Internet is an invaluable and inestimable resource for enhancing learning, teaching and research. In the developed countries, and even some developing countries (e.g. Nigeria), Internet facilities are being used extensively for service delivery. Teachers in Primary and Secondary schools, as well as university lecturers use the Internet to discharge their statutory responsibilities of teaching and research more efficiently and effectively. They can obtain information on materials and equipment for teaching (Watson 1999; Dennis & Espinoza 2001; Oni 2005). In addition, the Internet can be used to search for answers to certain academic questions by using Search Engines; to gain access to old as well as current books, journals, magazines, daily or weekly newspapers; for correspondence with other scholars and researchers via E-mail; for Tele- and Video-conferencing; Internet chat, and so on.

Today, the Internet is even used for teaching by institutions in the developed countries that award on-line diplomas, and degrees (B.A; M.A; etc). According to Oni (2005:3), "the Internet could be used as a teaching tool especially when the lecturer maintains a web page. This practice is becoming more popular with the availability of user-friendly web page publishing software. Examples of web page uses, according to Heron (1998) include posting course syllabi, solution to problems, tips for students and announcement". In essence, Internet services, if properly harnessed in Nigeria, can facilitate teaching and learning via the "Open University" or "Distance Learning" system of education (see also Bruce 1995; Bane and Milheim 1995).

The use of the Internet by educational institutions has a long history in the technologically advanced countries, but it is a relatively novel idea in the developing world. It was only in the 1990s that the computerization of Nigerian universities actually started. Whereas Internet use

in the private sector is increasing significantly, progress has been very slow in the public sector, including the tertiary institutions (Banjo 1998; Udo 1998; Oyinloye 1998; Abdullahi 2006). Today, most Nigerian institutions of higher learning have either full or partial Internet connectivity; the enormous potentials of the Internet for academic purposes are yet to be fully explored. Among the factors militating against effective use of the Internet are:

i. Erratic Power Supply;
ii. Shortage of Technical Manpower;
iii. Inadequate Equipment and Accessories;
iv. Poor and Expensive Telecommunication Facilities;
v. Inadequate Funding by Government;
vi. Poor attitude of Government to Computerization Oni (2005:4); and Muhammad (2000).

Thus no academics can exist in coming years without familiarization in handling the Internet Daniel (2000), Omemekwu (2001) and Oni (2005) In tertiary institutions today Internet has become an important electronic services in the faculties and the department also in the library.

1.1.1 Uses of Internet

The introduction of the Internet to the tertiary institutions in the libraries departments and faculties have greatly enhanced the efficiency and performance of the academics. According to Osuala, (2000) and Oni, (2005) client can get satisfactory answers to their query/queries within the shortest time while academics can perform their functions more effectively and efficiently with the use of Internet. Among the benefit of the Internet is the inexpensive way to communicate with other users in the world. Internet is used to obtain information on important resources for teaching, learning and research. In addition books and journals that

have hitherto been impossible to keep current copies in academic libraries especially of the developing countries are now available electronically and instantly as they are published. The internet could be used as teaching tool especially when the lecturer maintains a web page. This practice is becoming more popular with the availability of user friendly web page publishing software.

1.1.2 Use of Internet in Tertiary Institutions in Nigeria, for Teaching, Learning and Research

The internet was created in the academic environment since its creation it has grown to become a commercial and popular medium the original use of uses of internet were to send messages electronically (electronic mail or e mail) send documents on file to colleagues in order places i.e. file transfer using ftp (file transfer protocol) act as information host and allow for group discussion on line (bulletin boards and news groups) and access computers in other location i.e. remote computers access (telnet) however, the use has expanded to include finding information .(i.e. navigation) on internet sites using world wide web through a graphical using interface (GUI) such as mackintosh or the Microsoft windows Randall, (1995) today most web browsers come with the GUI features and are regarded as graphical web browsers the world wide web is describe as a graphical client server information system which uses hyper text to organize connect and present information and services throughout the internet. That is a hypertext base system for finding and accessing internet resources.

The world wide web is the most widely used applications of the internet even though it was never designed to be a mass information storage retrieval system it has become the leading information retrieval service of the internet. It gives users access to varieties of documents that are connected to each other by means of hypertext or hypermedia links however, one has to use it with care term hypertext and hyperlinks hypertext allows users to select a word from

text and thereby access other documents that contain additional information relating to the word without having to worry about command.

1.2 STATEMENT OF THE PROBLEM

Several studies have explored the use of internet to access information how the academics use ICTS/Internet to get information in their discipline and teaching across the globe. The Internet is an important source of up to date information for online journal and database in many countries several studies have explored use of computers and the internet.

As stated earlier, the introduction of the Internet technology has tremendously impacted on service delivery by tertiary institutions in the developed countries. In Nigeria, however, efforts are just being made to strengthen the use of Internet particularly in the institutions of higher learning. In addition to funding by Governmental agencies such as the National Universities Commission (NUC) and the Education Tax Fund (ETF), some international bodies such as the World Bank/International monetary Fund, corporate bodies (e.g. MTN) and other Non-Governmental Organizations also provide support for ICT and Internet projects on campuses. Scholars, researchers and lecturers are also gradually embracing the Internet due to its numerous advantages. Consequently, it is very important to investigate the accessibility and degree of utilization of the ICT and Internet facilities available in Nigerian tertiary institutions. Some researches have been conducted on the use of ICT in Nigeria generally, but only a few studies focus on accessibility and utilization of the Internet on campuses (see Banjo 1998; Oyinloye 1998; Oniyide 1998; Muhammad 2000; Oloruntoba and Olorunsogo 2001; Oni 2005; and Abdullahi 2006). In view of the scanty information on the nature, extent, and use of Internet services in tertiary institutions, it is necessary to embark on the kind of investigation envisaged in this research. It is also necessary to access the impact of the

Internet on the academic and other activities on campuses, as well as those factors that may impede the effective utilization of the Internet (see also Nwosu 2000; Ojedokun 2001).

1.2.1 Tertiary Institutions in Niger state

Niger State is often categorized among the educationally disadvantaged areas of the country. Although more primary and secondary schools are being established in the State with an increase in school enrolment, there is still room for further improvement. There are about fifteen (15) tertiary institutions of State and Federal universities, Colleges of Education, Polytechnics and Monotechnics located in different towns of Niger State. These include: 1. Federal Polytechnic, Bida; 2. Federal University of Technology (FUT), Minna (2 campuses); 3. Federal College of Education (FCE), Kontagora; 4. Niger State Polytechnic, Zungeru; 5. Niger State College of Education, Minna; 6. Ibrahim B. Babangida (IBB) University, Lapai; 7. School of Nursing, Bida; 8. Federal College of Wildlife Management, New Bussa; 9. Niger State College of Agriculture, Mokwa; etc.

To the researcher's knowledge, and from available literature, there is no research on the nature and extent of Internet use by the academic staff of these institutions. This is the main motivation for the current study.

1. 3 RESEARCH QUESTIONS

The following are the research questions to which the research seeks to provide answers:

i. What kinds of Internet facilities/services are available/accessible in the tertiary institutions in Niger State?

ii. For what purposes do the academics use Internet?

iii. Which particular Internet services do academics in these institutions prefer to use or actually utilize for academic and related activities?

iv. How are the academics satisfied with the available Internet facilities for teaching and research purposes in the institutions of higher learning?

v. What are the factors that may militate against a full and effective utilization of Internet facilities in the institutions?

1. 4 OBJECTIVES OF THE STUDY

The main purpose of this study is to know the extent of utilization of the Internet in tertiary institutions in Niger State.

i. To find out Internet facilities that are available and accessible to academics in selected tertiary institutions located in Niger State;

ii. To ascertain what the academics use Internet services/facilities for?

iii. To ascertain the particular Internet services which lecturers in the various Departments prefer to use or actually utilize for academic and other related activities;

iv. Ascertain the degree of satisfaction of the available and accessible Internet Facilities for teaching and research in the institutions; and

v. To find out factors that may militate against a full and effective utilization of the Internet Technology for academic service delivery in the various institutions.

1.5 SCOPE OF THE STUDY

The study was limited to academic staff of tertiary institutions in Niger State. Six institutions of higher learning located in Niger State are selected for study. They are:

(a) Federal Polytechnic Bida;

(b) Federal University of Technology (FUT), Minna (Bosso and Gidan Kwano campuses);

(c) Federal College of Education, Kontagora;

(d) Niger State College of Education, Minna;

(e) Niger State Polytechnic, Zungeru;

(f) Ibrahim Badamasi Babangida (IBB) University, Lapai.

Specifically the study covered the availability of internet services/facilities, uses, preference, satisfaction and factors militating the use of internet services/facilities. This study was limited to the six tertiary institutions that have Internet facilities for teaching, learning and research. Questionnaire were administered to targeted respondents and the findings are limited to the institutions studied. Similarly, the focus of the study shall be on the accessibility and utilization of the Internet for academic activities such as teaching/learning, seminars/conferences, books/journals, research networking, and so forth. The use of the Internet for administrative service delivery or other non-academic purposes is, therefore, outside the scope of this study.

1. 6 SIGNIFICANCE OF THE STUDY

In a globalize world with ICT, librarianship and academic activities should not be limited to the physical catalogue and shelved books or journals. It is very important, therefore, to integrate virtual library and the vast electronic resources available via the Internet into the

existing library system. The Internet can facilitate not only library service delivery, but also teaching and research pursuits. To that extent, it is necessary to investigate how much of Internet facilities are available/accessible in Nigerian tertiary institutions. It is equally important to examine the actual utilization and impact of the Internet, as well as well as the challenges of providing Internet services. All these should engender meaningful planning.

The study, when completed, will be of interest to the following categories of people: library academics and professionals; students/scholars and researchers in library and information science; academic staff in various disciplines; authorities of tertiary institutions; educational planners and administrators; as well as State and Federal Governments. If concrete and reliable information is available on the availability, use and problems of providing Internet services in the education sector, all the stakeholders would know what to do to maximize the benefits of the Internet technology.

It will also add to the existing literature.

1. 7 BASIC ASSUMPTIONS OF THE STUDY

The basic assumptions upon which this research is based are as follows:

(a) All the selected tertiary institutions in Niger State are ICT compliant, and have Internet Connectivity;

(b) All academic staff in these institutions have the relevant technical skill for Internet use;

(c) There are no hindrances to the accessibility and utilization of the Internet by lecturers in the institutions.

1. 8 OPERATIONAL DEFINITION OF TERMS

The following terms have been operationally used for quick understanding of the study. They are:

Access: The means by which or opportunity to have something.

Use: The act of using

Internet: This is a computing device: a computer system that allows people to exchange idea or information.

WWW: World Wide Web. An Internet hypertext system for information distribution and retrieval. It links documents, FTP sites, gophers and telnet and integrate files into text, graphics, sound and other formats

URL: Universal resource location .A standard for addressing an object, on the Internet especially on the World Wide Web. An Internet address is a URL.

HTML: Hypertext mark up language. The coding applied to text files that allows users them to appear as formatted pages on the WWW or World Wide Web.

Gopher: A menu driven computer interface on the Internet that allows users to access large number of resources stored.

TCP/IP: Transmission control protocol/Internet protocol. A combined set of protocols that perform the transfer of data between computers.

Electronic Mail: A means of sending messages electronically over a computer network.

Web Simply means networking, this is a common information space, which allows for communication by sharing information.

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CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter examines the literature relevant to the study. The literature was derived from textbook, journals and the subject of the study, with the aim of putting the study in proper prospective. In order to achieve this effectively the review is organized in this way: the concept of ICT, Internet definition, Internet access, use relevance of Internet to academic services, factors influencing use of internet, potential of Internet use by academics and summary of the review

2.2 THE CONCEPT OF INFORMATION COMMUNICATION AND TECHNOLOGY

The progressive increase in the use of Information and Communication Technologies (ICT) in education has drastically changed the teaching/learning process. A great deal of research has proven its benefits in educational quality. Among the ICTs, the Internet has been a single major force of change in higher education. Since 1991, and especially with the use of the www browser in 1993, the internet has gradually become the main vehicle of scholarly communication. However, the intensity of internet use varies from individual to individual, institution to institution, and from country to country. Bin Talib (2003), using several studies, identifies four categories of internet use by faculty members as follows informational Internet use, supplemental internet use, essential internet use, and communal Internet use. Losee's Akinde, (2000) defined information as an entity that arises from a set of data, which has been structured and tailored towards a particular audience, upon which vital decisions may be made.

2.3 INFORMATION TECHNOLOGY IN HIGHER EDUCATION

The early eighties signaled the universities, perception of information technology and network as essential tool for learning research and teaching. This prompted the National Science foundation to establish in 1986, a new trans-continental network based on the TCP/IP protocols Zakon, (2000).

Thus, up till the middle of 1990s internet was available to tertiary educational institutions where it is used as a friendly user-interface to search for resources pertaining to specific subjects or information on inter-related subjects. Apart from the use by students, academic staff has embraced Internet in their teaching activities through downloading educational software, sourcing for subject-related information and introducing Internet as part of class curriculum for students. Internet serves as an information source that facilitates multi-disciplinary and borderless learning and plays a pivotal role in supporting access-oriented learning Tan, (1995).

Morris, (1999) observed that the Internet has become impossible to ignore in the last few years and even people who do not own a computer have seen or heard about its uses or "surf the net" Activities that wish to maintain a competitive edge into the next century have to move quickly and establish their identity with the Internet.

The changing nature and needs in education now place emphasis on access-oriented learning. The Internet is one of the existing networks that can favorably cope with this demand. South African Education minister, Bengu, (1996) stated in a white paper on education15th March, 1995 that:

> *Our message is that education and training must Change. It cannot be the usual business in our schools, colleges, technical and universities.*

> *The national project of reconstruction and development compels everyone in education and training to accept the challenges of creating a system which cultivates and Liberates the large numbers teachers of schools are required in developing countries and may not always posses all the skills required to teach the new curricula Communication is limited in many schools while a few more rapidly into the use of information-age technology. Students have increasing exception for high quality study materials to support education.* West, (1996:2).

Difficulties with transport of goods through borders and seaports can restrict even donated books from arriving at their proposed destinations. Some private institutions in South Africa are currently moving their services onto the Internet, which includes registration of students and payment of fees, delivery of study materials and e-mail tutoring, West (1996:63). Even in Ahmadu Bello University students are currently move their services to the Internet.

2.4 INTERNET RESOURCES AND SERVICES

A brief description of typical type of Internet resources for educational purposes is given below. The intention is not to provide a comprehensive or to inform the reader of possibilities that exist once one become familiar with the Internet. The internet provides a number of resources and services for the purpose of retrieving and disseminating of information to and from computers on the network. Resources are seen to be turned to for help when needed. A resource has the properties that inform, resolve an information problem. Where access to the resources are obtained via the Internet Information resource. Some of the resources include library catalogues, World Wide Web (WWW) and a search on the Internet will reveal many resources that may be useful to individuals. Service is a system or an arrangement that meets public needs especially for communication. Some of the more basic ones include: electronic mail, Usenet, News, File Transfer protocol, telnet, wide area information services (WAIS) Gopher. The educational resource information center (Eric) is an information system affiliated

to the US Federal Department of Education. It provides a variety of services and products on a broad range of education related issues of research reports, conference papers, bibliographic records of research reports, teaching guides, books and journal articles relating to the practice of education etc. ERIC database can be accessed through a number of web, gopher telnet or TN 3270 sites Jiminy, (1998).

2.4.1 InterCat; a Catalogue of Internet Resources http/lorc.rsch.ucle.6996

This is another search able database from OCLC InterCat is a catalogue of Internet resources springing from OCLC. It contains bibliographic records of Internet resources that have been selected and catalogued world wide Marion, (1991).

Those Institutions that are using the Internet in their provision of education use individual facilities such as email, discussion groups, www access and/or electronic publishing. All these are used as a means of communication between learner and lecturer or the Internet is used as a delivery mechanism for word processor documents containing correspondence materials Bariet, (1993).

2.4.2 Electronic Mail

Electronic mail has been available in a number of universities since the late 1980s and has been the most widely used feature of Internet. Popular email packages in increasing order of sophistication are Elm, pine' and Pegasus. E-mail is almost instant in reaching addresses various reasons why e-mail is preferable to phone, fax or posted letters is put forward by Rose, (1994).

2.3.3 Newsgroup and Mailing List

The Internet has spawned a huge number of discussion groups for people to exchange information and views in their subjects of interest. Business professionals and hobby areas. Various "newspapers" have been formed under Usenet to exchange views and information in a very broad collection of specific interest areas. If is possible to browse through the Internet and access all the messages contributed and made available by the Internet provider (Hahn and Stout, 1995).

An alternative form of "electronic conferencing" is provided by 'mailing list' and over 4000 of these have been formed. They are available within email, hence not requiring full Internet services for access and extend the capability of multiple destinations.

2.4.4 World Wide Web (www Access)

The web is neither a physical place nor a set of files nor even a network of computers. The heart of web lies in the protocols (common communication rules and languages) that define its use. World Wide Web (www) uses hypertext transfer protocol to transport files from one place to another. What makes the www unique is the striking appearance of the information when it gets to your computer In addition to text the web present color images sound and video. One 1995 estimate (www.anamorp.com/docs/stats/stats) said that at that time there were 27,000 web sites and the number is doubling every year Baron, (1999).

2.4.5 Online Public Access Catalogue (OPAC)

Over a thousand academic and public libraries throughout the world with www access now make their catalogues and other bibliographic data base available for Internet users to search

.Before the Internet age these resources were only available through physical access to the libraries but now this massive information is at every Internet users fingertips.

2.5 INTERNET: DEFINITION AND CONCEPT

However many people have had about the Internet, Different people have heard or have the idea about what is actually is. The Internet according to Oxford Advanced Learner Dictionary Internet is an international computer network connecting other network from computers from companies, universities and countries etc., Mishra, (2003) describes the internet as a mechanism that allow people through their computer to access information; (a) The internet contains of three components the network of computers, that join together in various ways, (b) users from different location and the services and resources, which can be accessed, such as Internet phone, Internet relay chat, World Wide Web (www). According to Agbaje, (2003) says Growing from 200 interconnected computers in 1983 to two millions a decade later and with traffic rates continuing to grow at 10 – 15% per month, this high level of Internet connectivity fosters an paralleled degree of resource sharing and information access. Although many people are now familiar with electronic mail (e-mail) fewer but a growing number are familiar with the some other tools for funding and accessing information on the net, gopher for searching information on the net, File Transfer Protocol for moving file data. "According to Dharvar (2005) of the standardization of the commands to gain access to the net using various programs is to make sure that many people are able to obtain access to the net not only to make use of the information available but also to contribute to the growth of the Internet" Access to the Internet has become much easier due to the standardization of command and User friendliness of computer programs.

2.6 POTENTIAL BENEFITS OF THE USE OF INTERNET

Highlighted here are some of the potential benefits resulting from the use of the 'Internet Global connectivity'. The entire world is now connected with the Internet so we can confidently say that the world is a global village. One can get information from any part of the world. The Internet and www have opened up global connectivity, accessibility and means of distributing documents as never before, computers and digital technologies are now been used to improve the publishing process. The establishment of the internet formed the most fundamental stage in the transformation from traditional publishing to online digital publishing Abram, (2002) with the use Internet services like discussion groups, it is possible to post message which include requests for information: seeking book titles or reference materials, asking for names and addresses of people who have expert knowledge in particular areas, conference announcements, job vacancies and journal tables of contents message contributed by individuals are distributed to all members of a list When the message is a request, there is good chance someone in the group will volunteer advice. Okiy, (1998). The Internet eliminates the use of microforms for preserving book contents. It is user friendly protects the integrity of book and introduces one to computer literacy.

2.7 INTERNET USE IN DEVELOPING COUNTRIES

Many universities and colleges visit institutions in developing countries, exploring the emerging Internet market. Courses can be made available from institutions in first world countries but tend to be excessively expensive due to poor economies of developing countries.

A cost effective means to deliver courses from major, first world institutions to alliance institutions in developing countries would be a desirable situation, It could help in the up

liftment of people in developing countries: contribute to the social responsibility role of first world institutions with out major additional cost (West, 1996).

In the past and in many developing countries, most computers were placed in computer laboratories Barret, (2000) believes that this is not education and that technology "should support the complex private and social activities that make up the learning process".

With this in mind developing countries are creating a filly distributed computing environment to support the learner's through the provision of electronic mail, access to software, personal file storage and other communication utilities. In this way computers on the Internet were used to aid students in the baling process.

Through changes in technology, institutions in first world countries have a new method for assisting people and institutions in developing countries without detracting from their primary markets or causing excessive expenses. Online schools Natalie, (1999) that have been formed in other parts of the world will shortly be able to offer assistance to people running home based schools in developing countries Educational support may be offered to individuals, schools or Institutions of higher learning without sending delegations of staff for extended periods if available Internet resources were used to their current capacity.

2.8 INTERNET USE AND ACCESS

Madusudhan (2007) conducted a study to learn about the use of the Internet by research scholars and perceive that the majority of the use the Internet daily for their academic purposes. A detailed questionnaire were distributed personally to120 users in various fields of technical education in DCE, and among the findings of the study indicated that majority of the research scholar 70% used the Internet daily for academic purposes, 66% were using

e-journals and databases, other users preferred to use Internet e-mail others used www and file transfer protocol respectively. The study also showed that some scholars faced information retrieval problems through the Internet and 73% users faced very low bandwidth when surfing for the web.

Mishra, et al (2005) conducted a study to learn the Internet utilization patterns of the undergraduate students of G B University of Agriculture and Technology, India. The findings indicated that a majority of the students 85.7% used Internet. Out of the Internet users 67.7% were male students and 32.3% of the females used the Internet for preparing for assignments. A majority of the respondents, i.e., 83.1% male and 61.3% indicates indicated that they faced the problem of slow functioning of the Internet connection.

A study by Asemi (2005) showed that all the respondents were using Internet frequently because all faculties were provided connection to the Internet. It was revealed that the researchers of the university were getting quality information through the internet fifty-five percent of the respondents searched for scientific information through the Internet because the university library had provided access to the various data bases and on line journals for all the students. This research is similar in nature the population is different.

Hanauer, et al (2004) Surveyed a diverse community college to assess the use of the Internet by students for health-related information the survey showed that although all the students surveyed had free Internet access through their community college, only 97% of the students reported having access to the internet. The surveyed showed that 83% of the internet users had access to the Internet in their home, and 51% of the respondents accessed Internet from their college or library. 85% of the students reported that they access the internet most for

college work, and 80% for e-mail/chat. Men and women search for health information in almost equal numbers.

The changes in technology that could have the most significant impact on in the 1990,s are those related to the internet. A company can now instantly (literally overnight) have a global shop front no expensive brochures need to be printed and travel undertaken to sell ones services in a foreign country. One simply can create a set of web pages and be a global player. The Internet may be seen as a form of mass media Morris, (1996) which may be used for both educational and business purposes. While unsolicited junk mail is taboo on, the medium does make it possible audio and video lectures without the use of magnetic tape. This may be an ideal form of mass delivery of tutorial matter at low cost for global education institutions Thus In the academic and scholarly environment the Internet is used to achieve a widespread integration of technology, teaching and learning.

Another scholarly or academic use .of Internet is in the area of research. Scientific research offers many other satisfactions in addition to the exhilaration of discovery. Academics use the opportunity to associate with colleagues who have made important contributions to human knowledge, with peers who think deeply and care passionately about subjects of common interest: Internet provides possibilities for such interaction and exchange of communication. This common interest and passion is also extended from researchers to students who can be counted on to challenge assumptions. Research databases on the Internet are information warehouses. A database can be broadly defined as a collection of interrelated data of different types there are lull text databases, image databases. Abstract databases, and so on, therefore, the internet provides for the academics research database that collates research related

publications, abstract, reports, patents, etc., and is often a collection of machine readable bibliographic records.

Such a record is a "surrogate" for an actual document, published article, book or even audio-visual item. So a researcher database differs from a reference databases for www search engines, which only finish links or pointers to documents or web pages.

Apart from the factors of teaching, learning and research, internet can be used for administrative processes in academic environment. With the Internet online education. Universities and colleges can register students for online programs from around the world and reports abound of those who find this form of distance education most appropriate to their own needs. Scott, (1994).

2.9 USE OF INTERNET FACILITIES/SERVICES

Madhusudhan, (2007) conducted a study to learn about the use of the Internet by the research scholars of the university of Delhi, India. It revealed that a majority of the research scholar 70% used the Internet daily for academic purposes, summarized their finding as follows: using e-journals and data bases. It also indicated that 98 percent of user preferred the Internet e-mail facility, 96% were using the World Wide Web, 4% the least used the FTP Internet service, some faced information retrieval problems through the Internet and 73% of users faced very low bandwidth when surfing the web.

Amrita (2000) conducted a survey regarding the use of the Internet facility at guru. The study indicated that all the respondents used the Internet for sending e-mail, and 82% for web. More than 60% for primary information, 38% for secondary, only 15% used it for consulting online public access (OPACs). A majority of the respondents (76.5%) faced the problem of

slow internet connectivity. All respondents used search engines to browse the required information. More than one-third of the respondents typed the web address directly and only 1.5% used subscription databases. The results of the study further showed that more than 80% of the respondents felt that in comparison to traditional documents, the internet was time saving, easy to use, more informative, more useful and more preferred.

2.10 PROBLEMS ASSOCIATED WITH THE USE OF INTERNET FOR EDUCATIONAL INSTRUCTION

As more Academic staff become users of the World Wide Web, there is real potentials for advancement of learning Billions of readily accessed information is available with a choice of free and easy to use search engines viewed in this way the Internet has boundless opportunities for tertiary education. However there is down side with the rapid increase in usage of the Internet by academic staff as well as students, there has also been commensurate rise in a new form of an old ethical problem, "cyber or Internet plagiarism".

Educators will need to consider how students are interacting with information technology and how ethical these interactions are unprecedented and unparallel access to information without consideration of its ownership or authenticity provides ongoing concerns for society Cyber Atlas, (1999).

Hickman, a Yale graduate of 2000 maintains that online plagiarism is a growing problem. He explains that in a 'few years, academicians and students were able to buy papers on variety of subjects using the Internet Thousands of "hits" are visiting the sites each week. Hickman, (2000). Other problems include the following: - Not everything is on the web, only eight percent of journals are on the web. No search or Meta search engine searches the entire web, and what is found is not updated, daily monthly or even weekly. Quality control does not exist

on the web. Anybody can put anything on the web. Reading of digital book for more than one hour could be of discomfort. The present computer screen resolution has to be increased ten fold to achieve any form of convenience. Internet is ubiquitous but the facilities are not portable like the book. Users of the Internet are sometimes not willing to have the Internet computers once their time is up. This causes users to quarrel among themselves. Misuse of internet facilities: some sign in for research and end up using the facilities playing games, using chat group sites, access "erotic arts" sites, etc., Comla, (2000).

Ifidon, (1998) and Zakari, (1997) have also identified gross under finding of universities as a major obstacle in the acquisition and application of information technology to their services. The over riding obstacle to full internet presence in Nigeria is the lukewarm attitude of the federal government which places internet at the lowest primary level. (Irornantu, 1998 and Onyekwuelu, 1998). Several studies have been conducted to date that attempt to address the issue of who is on the Internet and what they are doing there. A good summary of the studies available can be found at Cyber Atlas, (2000).

2.11 SUMMARY OF THE REVIEW

In this chapter various works that bordered on the Internet in general were reviewed. The review was presented from previous studies to give a proper perspective to this study. The result /outcome of the review shows that use of Internet are similar in degree of communication, resource sharing and information access.

Previous studies observed that variations in use the Internet for teaching, learning and research in department/faculty in various disciplines but conclude that the most common obstacle to the access and use of electronic information resources by faculty is lack of

knowledge about what is available. The impact of technology on education should not be under estimated. Credible Institutions may form global educational alliances and offer courses to students in remote locations. Home schools are beginning to thrive in the Internet and could encourage parents to supplement their children's schooling or where legally possible to move children to global classrooms.

Tertiary level students have a wider choice of institutions through which to study than during any earlier period and the range of possible programs of study may be quickly increased through global alliances.

The most limiting factors could remain the unwillingness by academics to become familiar with the new technology solutions. Limited access to computers and the internet is a challenge being tackled by many large organizations and is likely to be overcome through the use of shared facilities in colleges, universities, internet cafes, private groups. The study reviewed is similar to the present study: they explored the use of a range of the Internet services that are similar to those in the present study. The relevance of the Internet use with the particular reference to academics in tertiary institutions in Niger State is the concern of the present study. It must be noted that most of the work reviewed in the study emanate from developed countries that differ from Nigeria in the rate of adoption and use. Although the studies are different in population, outcome of use in the institutions are the point of reference to discuss the out come of the group of users of Internet by selected academic staff in tertiary institutions in Niger state.

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CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This chapter described the research method used for this study. It discussed population of the study, the sample size and the sampled technique, the data collection instruments, the procedure for the data collection as well as the procedure for analyzing the data.

3.2 RESEARCH METHOD ADOPTED

The research method used is the survey method. Aina (2003) asserted that survey research is a systematic and comprehensive collection of information that reflect the opinions, attitudes, feelings, beliefs and behaviors of people on an issue. This involves the collection of data about a target population using a selected sample and putting together the results of findings obtained from analysis of the sample as representative of the whole population later generalize the results obtained from the of the whole population. The survey research method was used for this work because the nature of the study itself warrants the use of the survey method as it enabled the researcher to reach out to the study population in their different locations. In addition, the survey method was adopted because the work is mainly interested in describing the certain variable in relation to the population

3.3 POPULATION OF THE STUDY

Population, according to Osuala (2002.39) refers to any group of individuals that have one or more characteristics in common that is of interest of the researcher. Similarly, Adamu et al (1997) referred to population as a collection of people or things that are to be observed in a

given problem. Therefore, the population of the study was limited to the institutions that have Internet facilities in the libraries/departments which academics have access to. Although six Institutions were involved in this study. The choice of these population group was based on the facts the are supposed to be in the warfront of instilling the use of Internet for teaching, learning and research. Thus, all the academic staff in six tertiary institutions formed the population, based on the information from the registrar office and various departments and schools, there are 213 Academic Staff in Ibrahim Badamasi Babangida University, Lapai, 741 Academics in Federal University Technology, Minna, 451 Academics in Federal Polytechnic, Bida, 433 Academics in Niger State, Polytechnic, Zungeru. Also included in the population are 451 Academics in Federal College of Education, Kontangora.

Table 3.1: Showing the Sample Size and Percentage of the Population

S/No	Tertiary institutions	Population	Percentage
1	Ibrahim Badamasi Babangida university Lapai	213	46.94%
2	Federal University of Technology Minna	741	13.49%
3	Federal Polytechnic Bida	451	22.17%
4	Niger State Polytechnics, Zungeru	433	23.09%
5	Federal College of Education Kotangora	451	22.17%
6	College of Education Minna	345	29.98%
	Total	2634	95.3

3.4 SAMPLE SIZE AND SAMPLING TECHNIQUES

The whole population could not be studied for the research. Adamu et. al (1997) were of the opinion that sample is that part of the population chosen and for the purpose of making a scientific statement. Thus, sampling method used for this study was the simple random sampling technique which according to Aina (2003) gives each person in the sampling frame

an equal chance of being represented. Therefore each subject has an equal chance of being selected.

For the purpose of this study, the sample that was taken using the simple random Sampling technique of the academic staff in each of the tertiary institutions in Niger state.

The sample was determined by writing the number of the academics on slips and placing them in a container. There were drawn one by one from the container until the desired numbers were met as each was given probability of being represented.

The advantage derived from this were the sampling comes from a large population which was independent of each other the use of random sampling reduces expenses in time effort and money; it is also avoided bias in selections. It equally collects samples for observation where the whole populations were not reached it exposed the researcher to deep knowledge of the characteristics of the entire population

3.5 INSTRUMENTS FOR DATA COLLECTION

The instruments used for collecting data for this study were questionnaire and observation. The Instruments Used Identification Questionnaire (IUIQ) was administered to the respondents for purpose of data collection. This questionnaire was divided into 6 sections numbered (1-5). The first section solicited for the personal data of the respondents which was used for identification and classification purposes. The other five sections (2-5) contained items, which sought out data to answer the five research questions which guided the course of the investigation. The choice of this method of data was based on the following reasons. First, the respondents are literate and capable of completing the questionnaire without any assistance from any body.

Secondly, the respondents are spread over a geographical area over a wide geographical area making the collection through questionnaire is ideal. Thirdly the questionnaire method enjoy prominence in educational research. The questionnaire according to Omotosho (1994) "Questionnaire is the most frequently instrument used in educational research. The popularity is demonstrated by number of published studies''.

The questionnaire was accompanied by a letter of introduction to the respondents, intimating them of the purpose of the study and soliciting their cooperation in the study.

3.6 OBSERVATION

Observation is a systematic recording of non verbal as well as verbal behaviour and communication. It is a process of acquiring knowledge using sense of organs like eyes, nose, ear, etc. This directs observation method was employed in the study by visiting the institutions their library, observing the environment, the staff, the users, the work, and its facilities.

3.7 PROCEDURE FOR DATA COLLECTION

The copies of the questionnaire were administered to the respondents by the researcher and two research assistants. A period of three weeks was given to the respondents to fill the questionnaire while another week was added for follow up. However, it took the researcher/research assistants another two weeks to collect the completed questionnaire from the respondents.

3.8 ADMINISTRATION OF THE INSTRUMENTS

The researcher administered the (IUIQ) to six hundred respondents using hand to hand method. The respondents were allowed an interval of two weeks after the researcher and the assistants called back to collect the completed questionnaire but to the researcher surprise majority have not done anything at all but after a week later the assistants traveled to various institutions to collect the remaining completed ones. A cover letter was obtained from the Department of Library and Information Science.

3.9 PROCEDURE FOR DATA ANALYSES

The information collected through the questionnaire and observation were organized and presented in form of frequency distribution tables and data arising from this distribution was converted into percentages.

The analysis and presentation of data in the tabular form, which resulted from the findings, was based on raw data and its corresponding percentages.

Data collected was descriptively analyzed and the result of the analysis was used to answer research questions that were generated in the study. As earlier stated, percentages were the most useful element for analyzing the data in the study.

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CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

In carrying out the research work, for the research to be useful, the data for research must be interpreted in the light of condition under which it is carried out. The data is one means by which research problem is answered.

This chapter presented and analyzed, and discussed the data that were collected for the study. The presentation and the analysis of data have been done under the following sub–headings: Response Rate, the available Internet Services in tertiary institutions, Uses made of Internet Services/Facilities by Academic Staff, Preference for Internet Use among the Academic staff, Levels of satisfaction with the use of the available Internet facilities /Services by Academic staff, Factors affecting Internet Use by academic staff of the tertiary institutions in Niger state, Nigeria.

4.2 RESPONSE RATE

The field work was restricted to selected tertiary institutions with internet facilities/services in Niger state. However, six tertiary institutions were used for the study. 600 Academic Staff were served with the copies of the questionnaire to the respondents and 572 were completed and returned this constitutes 95.3%. This high return was due to the researcher being on the field distributing with the assistants who went back for collection of the questionnaire from the respondents. The 95.3 percentage return is very high enough and found useful for the research.

Table 4.1 Response Rate

Tertiary institutions	Questionnaire Distributed	Questionnaire Returned	Percentage
Ibrahim Badamasi Babangida University, Lapai	100	97	17.0
Federal University of Technology Minna	100	98	17.1
Federal Polytechnic Bida	100	95	16.6
Niger State Polytechnics, Zungeru	100	94	16.4
Federal College of Education, Kotangora	100	94	16.4
College of Education Minna, Niger State	100	94	16.4
	600	572	95.3

Detail of the above table–4.1 revealed that six tertiary institutions in Niger state were sampled. Their representation showed that Federal Polytechnic, Bida had 94 respondents, the same sample representation with federal college of education while 97others representing 17.0% are from Ibrahim Badamasi Babangida, Lapai, while 98 (17.1%) others are from Federal University of Technology, Minna and the rest 95 representing 16.6% are from Federal Polytechnic, Bida.

4.3 DATA ANALYSIS AND DISCUSSION

This section discussed the data to get finding to the study

The respondents were asked to check from the table the qualifications each of them obtained.

Table 4.2: Education Qualifications of the Respondents

Serial Number	Educational Qualification	Frequency	Percentage
1	B.Sc./B.A.	85	14.9
2	M.Sc./M.A.	423	74.0
3	Ph.D.	64	11.1
	Total =	572	100.0

Their responses are as contained in table–4.2 above, 423 respondents representing 74.0% said they have M.Sc/M.A. while 85 respondents representing14.9% held B.Sc/B.A. degrees, the holders of Ph.D. were 64 respondents representing 11.1%.

Table 4.3: Teaching Experience of the Respondents

Serial Number	Year of Teaching Experience	Frequency	Percentage
1.	1 – 3	125	21.9
2.	4 – 6	212	37.1
3.	7 – 9	199	34.8
4.	10 – 12	14	2.4
5.	13 – 15	22	3.8
	Total =	572	100.0

Table 4.3 above, shows that 212 of the respondents representing 37.1% have 4-6 years of working experience while 199 representing 34.8% have 7-9 years of teaching/working experience .Also 125 respondents representing 21.9% have worked for 1-3 years; while 22 representing 3.8% have worked for between 13 -15 years and the rest 14 of them representing 2.4% have worked between 10-12years.

Table–4.4: Availability/Accessibility of Internet Services/Facilities in Tertiary Institutions in Niger State

The researcher observed in table 4.4 above 10 Internet services/facilities were on the questionnaire to enable respondents indicate the ones that are available in their institutions. Their responses are contained in table 4.4 above. These show that Internet chat facilities, Internet discussion groups, electronic mail (e-mail) and World Wide Web are available in the tune of 50%, 58%, 62% and 76% respectively. On the other hand Internet news group, Video conferencing, Tele-conferencing facilities are not reasonably available in the selected tertiary institutions, but the issue of e-learning is not available at all.

Not withstanding the above situation it could be seen that majority of the listed facilities/services these result confirm in the institution studied, namely; e-mail, www, internet chat These result confirm the earlier observation of Mishra (2005) and Madhusudhan (2007), etc., that the internet are being used extensively daily for academic purposes. On the other hand internet phone, video conferencing, teleconferencing, facilities are not available in the institutions. This calls to the mind of earlier position of Oloruntoba and Olorunsogo (2001) that the library and departments are making effort at computerization at various stages of development. Therefore it could be deduced that from the above that the tertiary institutions in Niger state are trying to meet the challenges of the globalization and information technology, (statistical value obtained above was used to define non availability of the facilities/services).

4.3.1 Uses of Internet Services/Facilities by the Academic Staff in Niger State

In order to ascertain the uses which the academics make of the Internet facilities/services, the researcher provided them with a comprehensive list of 12 ways such facilities could be utilized for teaching, learning and research and other services. Thereafter the respondents were requested to indicate their level of agreed of agreement with the theoretical uses of the Internet on a five point likert scale containing in the following options.

The mean responses and standard deviations of the Academic staff on the 12 items have been computed and presented on the table 4.5 below

(see Table – 4.5)

The Use of Internet Facilities by Academic Liberians and Library Science Lecturers

(Mrs. Surakat Chapter Four A3 Second File

Table–4.5 above reveals that the academics studied the internet facilities/services in their institution in the following ascending order; business/professional news mean is equal to 4.741 and to download software which represents item 4 on the table with a mean of 4.190.

The academic also use the internet for obtaining routine information such as conference announcements and job vacancies. This item 11 has a mean of 3.243. Others are for to up date website mean of equal 4.200, item 2 which is using the internet to access electronic journals got a mean of 3.880. The rest are: to search and obtain data for research and publication mean of 3.765, item 12 for sending and receiving e-mail has the mean score of 4.303.

The use internet facilities/services by the academics as outlined above confirm the views of Chandran (2000), Amritpal Kaur (2000). The greatest internet to academics is that the use for sending e–mail and for the use receiving in connection with academic requirements, for accessing e–mail and communication for information gathering in addition the facilities are used for obtain important resources for teaching and learning.

However, the study also on the internet use reveals that some important facilities/services are not provided and put in place so that the academics can utilize them effectively if needs arises. The worst cases are those Internet phone has mean 1.985 video conferencing (with the mean score of 1.887, Internet fax with score mean of 1.960).

The limited use of internet facilities/services among academics as shown in the table, Williams (1999) and Voorbij (1999) report that the use of internet among students and academician in the Netherlands. Questionnaires were distributed among 1,000 members of academic community. The study reveal that the web was being used primarily to search

general factual, ephemeral or very specific information and the student faced problems while searching the web.

Based on the above analysis, it could be seen that the internet has become an invaluable tool for academic staff in tertiary institutions in Niger state. This is because the academics are personally concerned with meeting the challenges of globalization. Moreso, the increase in the volume of computers and internet service providers in the country coupled with their reduced cost have enabled many academics to hook on to the internet in order to improve themselves and their services.

4.3.2 Preference for Internet Service Use among Academics/Lecturers

The researcher provided the respondents with the following Internet uses from which they were asked to choose the one they use most; (a) Information retrieval services (i.e., using the Internet for receiving mails accessing and e-journals; (b) Information search service (for accessing library web site e.g., LOCS updating websites, for searching and obtaining data; (c) Communication services (for sending e-mails, making contacts, for discussions, etc) (d) Multimedia Information Services (e.g., video conferencing telnet connections etc. The data collected from the respondents from the Internet services is as tabled below:

Table–4.6: Preference of Internet services use among lecturers in the tertiary institutions in Niger state

The table–4.5 above revealed the preference rate of the interest sources among the lecturers in the various institutions. Information sources search has the highest preference rating among the various institutions as 191 (33.4%) total respondents prefer this sources followed by communication services for sending e-mail with 158 (27.6%) preference rate: Information retrieval services has the third level of preference rate among the lecturers in the six various institutions as 112 of the total lecturers representing 19.6% Prefer these services. The fourth most preferred internet services among the lecturer in the six higher institutions is the multimedia service as details showed that 111 representing 19.4% prefer these internet services. This preference for information search service is supported by work of Krovi, (2000) who conducted a related study on applications of the Internet were searching for information or data, retrieving articles and journals.

4.3.3 Level of Satisfaction with the Provision the Use of Internet Service/Facilities

In Table – 4.4 below the researcher listed some areas of satisfaction with Internet use among the academic staff and respondents were requested to indicate the extent of satisfaction with the Internet facilities or services using the following list provided below.

TABLE–4.7: Level of satisfaction with the provision the Use of Internet service/facilities

It is evident from table 4.6 above that the academic staff derive high satisfaction level in the use of Internet to access information World Wide Web this item attracted the highest mean response of 4.1888 as details of response further needed that 299 (52.30%), 169 (29.5%), 51 (8.9%) and 34 (5.9%) were very highly satisfied, undecided, low satisfied and very low satisfied respectively with this item. The academic staff also derived higher satisfaction level from Internet because it make them to anticipate problems and develop solutions in advance details as this items attracted the second highest means response of 4.1818 as details of responses should that 212 (37.1%), 306 (53.5%), 18 (3.1%), 18 (3.1%) and 18 (3.1%) were very highly satisfied, undecided, low satisfied and very low satisfied respectively with this items.

Table 4.8: Factors militating against effective utilization of Internet facilities in tertiary institutions in Niger state

According to the above table erratic power supply/lack of standby generator is the highest factor limiting the effective utilization of Internet facilities in all the six institutions as this had the highest mean response of 4.2290 as delays of response showed that 46, 50,58,48,40 and 50 from Ibrahim Babagida University, FUT Minna, Federal Poly, Niger State Poly, FCE and COE respectively are in agreement with this view. The second highest factor militating against full/effective utilization of Internet in these institutions is the remote hardware and unreliable network as this view attracted the second highest means of 4.1695 in all the institutions are delays showed that 45, 50, 58, 48, 40 and 50 of the respondents for Ibrahim Babagida University, FUT Minna, Federal Poly, Niger State Poly, FCE and COE Minna respectively were in agreement with this view.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter described summary of the study and drew findings, conclusion and made recommendations to overcome the problem under investigation.

5.2 SUMMARY OF THE STUDY

The study investigated the accessibility and use of Internet facilities by Academic staff of tertiary institutions in Niger State. Using five research questions, data were collected from 572 academic staff in six institutions of higher learning with Internet in their department or libraries. The data were analyzed using frequency distribution tables, percentages and mean scores.

5.3 SUMMARY OF FINDINGS

Based on the data analysis, presentation and discussions, the following are the findings of the study:

i. The study found that, the Internet facilities/services available in the departments, the libraries and cafes of the institutions concerned use for academics includes world wide web, Internet fax , Internet chat facilities, Tele–conferencing, Internet phone, Internet News group, Internet discussion groups, Video–conferencing facilities, and Telnet Services. However, Internet phone, telnet, video-conferencing, e-learning and Teleconferencing facilities are not available/accessible in the institutions investigated.

ii. The academics utilized the Internet facilities/services in a variety of ways. These include the use of Internet for accessing journals, for downloading materials, web browsing, for searching and obtaining data for research purposes. Other uses of Internet among the academics include; for sending e–mail, and for obtaining routine information within or outside the world.

iii. On the preference the Academics on the issue of Internet facilities/services it was found that, they all prefer information search services. And the research also found out that video conferencing, telnet connections are the least preferred Internet services.

iv. The provision and use of Internet facilities/services by the academics, it was found out that they derived high satisfaction in the availability and the accessibility of the Internet facilities to electronic journals and some publications that make them current and up to date and they are highly satisfied with the location and environment where the internet facilities are located. The factors that preventing the Internet use, it was found that old and outdated Hardware, network problem, connections cost, maintenance cost and organizational limit are problems on the Internet use and access. However, other problems include erratic power supply, low bandwidth, searching the website for locating some material on the net.

v. Finally, the academics agreed that the factors that inhibit Internet use in their institutions except on the competency of the computer usage, and on the technical area of using the browser.

5.4 CONCLUSION

In line with the findings of the research, the research concludes that Internet use is very important for the academics due to the benefits derived from it.

Firstly, Internet use and access is still at low ebb and some universities do not have all the necessary infrastructures/facilities for the Internet. Internet has not been given adequate attention it deserves among the academics even in the 21st century.

Consequently the activities of the academics are frustrated and they cannot compete with their counter parts in order part of the world due the limited use of the Internet. The situation is pathetic because of some numerous problems including erratic power supply, outdated equipment, connectivity and maintenance cost etc.

5.5 RECOMMENDATIONS

Based on the findings from this study and the conclusion reached, the researcher would want to recommend as follows.

i. Adequate modern facilities and services should be put in place in all departments and libraries. This will make the entire stakeholder be up to date and more responsive to challenges a head.

ii. Government should provide the enabling environment to enhance effective use of ICTs

iii. Every tertiary institution should have centralized internet servers that will function for 24 hours

iv. Facilities such as generating set, solar system, should be acquired and put in place to ensure smooth using of the Internet by the academics.

v The institutions should not only rely on the public power supply for the Internet simply because the situation is not improving everyday. In order to be able to compete with their counterpart in the world, lecturers should no how to access information on the Internet and should be able to teach their student on how to get useful information on the net.

vi. Lecturer should be encouraged to attend regular workshops seminar to update their knowledge on the use of internet facilities for their academic responsibilities.

vii. More funds should be made available by the authorities of the institutions under study for running and maintaining the Internet facilities. The present situation where by the institutions sometimes install but fail to maintain or paid the service provider on time should be stopped.

viii. Education should be made a top priority, including general and computer literacy and commitment to information awareness and the need for proper utilization and acquisition of ICTs.

5.6 RECOMMENDATION FOR FURTHER STUDY

The researcher suggests that further studies should be carried out on.

i. An assessment of Internet use should be carried out in both secondary and tertiary institutions in Nigeria.

ii. A study of the usage and the attitudes to electronic journals among academics.

iii. Replication of this study every six or five years and in other states of the federation.

Table–4.4: Availability/Accessibility of Internet Services/Facilities in Tertiary Institutions in Niger State

Internet Services/ Facilities	INSTITUTIONS			
	Ibrahim Badamasi Babangida University, Lapai	Federal University of Technology, Minna	Federal Polytechnic, Bida	N Po
Internet Chat Facilities	36	49	50	
Internet Discussion Groups	55	58	46	
Internet News Group	34	46	43	
Electronic Mail (e-mail)	50	70	60	
World Wide Web (WWW)	64	75	61	
Internet Phone	23	39	40	
Video Conferencing Facilities	30	40	45	
Tele-Conferencing Facilities	40	44	40	
Internet Fax	36	26	35	
E- Learning	---	---	---	

Table–4.5: The Use of Internet Facilities by Academics in Tertiary Institutions in Niger State

Serial Number	Internet Uses	Institutions
1.	To receive business/professional news	Ibrahim Badamasi Babangida University
		Federal University of Technology, Minn
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotangor
		College of Education Minna, Niger Stat
2.	For accessing electronic journals	Ibrahim Badamasi Babangida University
		Federal University of Technology, Minn
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotangor
		College of Education Minna, Niger Stat
3.	To update website	Ibrahim Badamasi Babangida University
		Federal University of Technology, Minn
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotangor
		College of Education Minna, Niger Stat
		Ibrahim Badamasi Babangida University
		Federal University of Technology, Minn

4.	To download software	Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotangor
		College of Education Minna, Niger Stat

Table–4.5: (Continued)

Serial Number	Internet Uses	Institutions
5.	To search and obtain data for research and publication	Ibrahim Badamasi Babangida Univers
		Federal University of Technology, Mi
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotang
		College of Education Minna, Niger St
6.	Internet phone	Ibrahim Badamasi Babangida Univers
		Federal University of Technology, Mi
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotang
		College of Education Minna, Niger St
7.	For video conferencing	Ibrahim Badamasi Babangida Univers
		Federal University of Technology, Mi
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotang
		College of Education Minna, Niger St

8.	Internet fax	Ibrahim Badamasi Babangida Univers
		Federal University of Technology, Mi
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotang
		College of Education Minna, Niger St

Table–4.5: (Continued)

Serial Number	Internet Uses	Institutions
9.	For telnet connections	Ibrahim Badamasi Babangida Univers
		Federal University of Technology, Mi
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotang
		College of Education Minna, Niger St
10.	To identify and approach experts in a field	Ibrahim Badamasi Babangida Univers
		Federal University of Technology, Mi
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotang
		College of Education Minna, Niger St
11.	To obtain routine information such as conference announcements and job vacancies	Ibrahim Badamasi Babangida Univers
		Federal University of Technology, Mi
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru

		Federal College of Education, Kotang
		College of Education Minna, Niger St
12.	For sending and receiving e–mail	Ibrahim Badamasi Babangida Univers
		Federal University of Technology, Mi
		Federal Polytechnic, Bida
		Niger State Polytechnics, Zungeru
		Federal College of Education, Kotang
		College of Education Minna, Niger St

Table - 4.6: Preference of Internet Services Use Among Lecturers in the Tertiary Institutions in Niger State

ternet Services	Institutions						Total	
	IBU LAPAI	FUT MINNA	FED POLY BIDA	STATE POLY ZUNGERU	FCE KONTAGORA	COE MINNA	Frequency	Pe
ation Retrieval es	20	21	19	18	18	16	112	
ation Search es	34	37	28	31	31	30	191	
unication Services nding e-mails	31	36	26	22	24	19	158	
edia Services	20	19	20	17	18	17	111	
TOTAL =	105	113	83	88	81	81	572	

Table-4.7: Level of Satisfaction with the Provision and Use of Internet Service/Facilities

Level of Satisfaction	Levels of Satisfaction Categories of Response					Mea
	VH	H	U	L	VL	
rived from Internet services because they are liable to ooks journal and other academic works without	163 (28.5%)	341 (59.0%)	34 (5.9%)		34 (5.9%)	4.04
of Internet in the library/dept/café makes the conducive for academic to derive satisfaction	163 (28.5%)	358 (62.6%)			51 (8.9%)	4.01
taff derived satisfaction from Internet use because ctive.	214 (37.4%)	288 (50.3%)	35 (6.1%)	17 (3.0%)	18 (3.1%)	4.15
taff derived satisfaction from Internet use because it rvices to their student and university community.	253 44.2%)	233 (40.7%)	34 (5.9%)		52 (9.1%)	4.11
staff derives satisfaction from the Internet use makes them alternate problems and develops dvance.	212 (37.1%)	306 (53.5%)	18 (3.1%)	18 (3.1%)	18 (3.1%)	4.18
aff uses Internet to access information world wide.	299 (52.3%)	169 (29.5%)	51 (8.9%)	19 (3.3%)	34 (5.9%)	4.18

Note: VH = Very High
H = High
U = Undecided
L = Low
VL = Very Low

Table-4.8: Factors Militating Against Effective Utilization of Internet Facilities in Tertiary Institutions in Niger State

	Serial Number	Factors Militating Against Full/ Effective Utilization of Internet Facilities	Insti		
			IBU LAPAI	FUT MINNA	F PO BI
	1.	Lack of time for browsing	34	40	
	2.	Having problems with the browser	38	42	
	3.	Organizational limits	44	48	
	4.	Remote hardware and reliable network	45	50	
	5.	Old and unreliable local hardware	42	46	
	6.	Erratic power, supply lack of standby generators hamper use of Internet	46	50	
	7	Not trained in the use of Internet to enhance productivity	40	45	