`

INFORMATION ANXIETY AMONG INTERNET USERS IN AHMADU BELLO UNIVERSITY, ZARIA.

By

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JANUARY, 2011

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A THESIS SUBMITTED TO THE POSTGRADUATE SCHOOL A.B.U ZARIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF LIBRARY SCIENCE DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE
FACULTY OF EDUCATION, AHMADU BELLO UNIVERSITY ZARIA.

JANUARY, 2011

DECLARATION

I hereby declare that this thesis entitled: “Information Anxiety among Internet Users in Ahmadu Bello University, Zaria” has been written by me in the Department of Library and Information Science. The Information derived from the literature has been duly acknowledged in the text and list of references provided. No part of this work has been previously presented for another higher degree to the best of my knowledge.

_____

Abdulkadir, Aliyu Date ……

CERTIFICATION

This thesis titled Information Anxiety among Internet Users in Ahmadu Bello University, Zaria by Abdulkadir Aliyu, meets the regulations governing the award of the degree of Masters in Library Science of Ahmadu Bello University, Zaria and was approved for its contribution to knowledge and literary presentation.

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DEDICATION

This study is dedicated to Almighty Allah; without Him, I can do nothing.

ACKNOWLEDGEMENT

Special thanks to my supervisors' Prof. Z. Mohammed and Prof. I. Umar for showing me every facet of the world; for teaching me how to do research properly and for guiding me along as if I were their beloved son; and for having confidence in me and patience in my sluggish progress; and for showing me how little I knew on just about anything!.

I am greatly indebted to the family of Prof S.G. Ado who are a constant source of encouragement and for their confidence in my ability. My gratitude goes to the Head of Library and Information Science Department Prof. Tijjani Abubakar, PG Coordinator Baba Aduku, Mr. Ezra Gbaje, Ahmed Lemu, Hayyatu, Babangida and Lawal for their moral and constructive criticism offered and their willingness to help at all times in the study. I also wish to thank Mr. .P.I.J. Idachaba, Mrs. G.I. Nock, Mr. Matthias Kasa and the entire Agricultural Library staff for their encouragement. How can I end this acknowledgment without thanking my wife Halima and my son Abdulkadir for patiently and quietly helping and supporting me to accomplish what I wanted to do? I thank you.

ABSTRACT

This study investigates Information Anxiety among Internet Users in Ahmadu Bello University, Zaria. To achieve the objectives of the study, five research questions and five hypotheses were formulated and were answered and tested. It examined among others; types of Internet access available, kind of Internet resources used, reason for Internet use, types of anxiety exhibited, causes of information anxiety among staff and students. The research adopted survey method; instruments used were questionnaire and online survey monkey. Stratified sampling technique was used to select respondents to accommodate the different strata of the subjects involved in the study. The data collected for the study were analyzed using both descriptive and inferential statistics. Questionnaires that were returned were analyzed using t-test Independent and percentages. The study discovered that e-mail and e-journal were the most used Internet resources by academic staff and the post graduate students. Research and learning, communication and social networking are the major purpose of using the Internet by the respondents. It was equally revealed that there is significant difference in the causes and frequency of exhibiting anxiety between academic staff and post graduate students in Ahmadu Bello University, Zaria. The study concluded that, both the Academic Staff and Postgraduate Students in Ahmadu Bello University have realized the fact that Internet use is prerequisite for the successful conduct of their research, learning and other scholarly functions So therefore, librarians need to reevaluate user preferences concerning information resources /facilities consulted and purpose of Internet search in other to save the time of the users. It is recommended that users should make it a habit of first checking the library's webpage before any other site and more computer/Internet training to be organise by the university.

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CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND TO THE STUDY

Information is defined by Aina (2008) as meaningful communication symbols transferred between any two points in human communication or machine networks. Similarly, Standard Dictionary (1987) defines information as the act of informing. It is the content of a message which if conveyed, and assimilated by the person to whom it was conveyed; usually result in some decision, action or behavioral change or addition to one's knowledge. Information occupies centre stage in all human endeavors. This may partly be due to the fact that almost everything which individuals do or which society engages in generates or is driven by information. Information is the basic ingredient for personal, social and national development. Access to it, in its entire ramification is therefore a basic human right whether the user of information is literate or non-literate. As pointed out by Ayoku (2008) information is wide spread and in some cases incomplete in a single source. Users would therefore, be required to collate information from various locations in pursuit of a goal. This suggests that sophisticated users will require multiple distributed/disjoint bits of information to accomplish a single task.

INFORMATION OVERLOAD

Innovations in information technology, such as the printed book, the periodical magazine or journal, the abstracting journal and the computer, have all led to complaints that it is impossible to keep up with the amount of information available. Such complaints have increased steadily over time. In 1852, for example, the annual report of the Secretary of the Smithsonian Institution in Washington drew attention to the fact that ‘about twenty thousand volumes purporting to be additions to the sum of human knowledge are published annually; and unless this mass is properly arranged, and the means furnished by which its contents may be ascertained, literature and science will be overwhelmed by their own unwieldy bulk’.

New information and communication technologies, aimed at providing rapid and convenient access to information, are themselves responsible for a high proportion of the overload effect, Allen and Shoard (2005). Certain kinds of technology are generally highlighted in this respect, particularly ‘push’ systems, which actively deliver information to the user without any request for it. While the volume of information available for search and retrieve at the user’s discretion – ‘pull’ – may be so large as to be daunting, there is not the same sense of information constantly arriving without being under the user’s control as with the active delivery systems. E-mail is usually regarded as the worst offender, particularly with overuse of ‘blanket’ e-mail or needless ‘cc-ing’ of messages. Although information overload is the most widely recognized problem of its kind, it is worth noting some other ‘pathologies of information’: seemingly strange behaviors exhibited when people try to cope with

changing information environments, particularly when a large amount of diverse information is available. Library anxiety is a type of anxiety which leads to a sense of powerlessness when beginning an information search in a library, and in feelings of being lost, unable to find one's way around, and afraid to approach the library staff. Infobesity is a term increasingly used to denote a situation of personal information overload, particularly if caused by a diet of information, akin to feasting on fast food Morris (2003). It is often dealt with by the simple, if brutal, tactic of information avoidance: ignoring relevant information and useful information sources because there is too much to deal with Case (2005). Savolainen (2007) identifies a similar phenomenon of information withdrawal, keeping the number of sources considered to a minimum, as well as more pronounced filtering strategies, with a rapid weeding of material of limited use.

INFORMATION ANXIETY

Information anxiety has been recognized as a problem in every sector of the society, and is of concern to information specialist in all environment including academic, special and public libraries. O'Reilly (1980) asserts that feelings of stress, confusion, pressure, anxiety or low motivation are the crucial factors that signal the occurrence of information anxiety. One of the main purposes of information technology is to free up users time or to make tasks simpler. Unfortunately the explosion of information and the number of different sources of information has shown that the opposite is true. People are overwhelmed with information and spend a significant amount of time just trying to filter through them. Lewis (1996) observed that too much

information can lead to paralysis of analysis, making it harder to find the right solutions or make decisions

CAUSES OF INFORMATION ANXIETY

Information overload is likely to occur in any activity shaped by a combination of the following characteristics as enumerated by Gbaje, (2007):

- A continuous stream of data
- A variety of sources of that data
- More than one person involved in the collection of data about one activity.
- Inappropriate data structures
- Massive volumes of data
- Severe competition for the data users time

The problems of information overload have both technological and human aspects. Eppler and Mengis (2004) identified some of the main causes of information overload at organizational and personal level to include::

- Organization design of a company.
- Characteristics of information.
- The person and his attitude, qualification, experience.
- The tasks and processes which need to be completed.
- Information Technology.

CONSEQUENCES OF INFORMATION ANXIETY

Gbaje (2007) asserts that information anxiety frequently leads to the premature abandonment of online search and unfulfilled information needs. This can also affect the effectiveness, and even the health of professionals who depend on information technology for the effective work. Information overload is one of the most serious problems facing professionals today affecting their task performance and job satisfaction. The assertion that more information implies higher performance is only true to a certain point, beyond which it overwhelmed an individual and leads to a rapid decline of performance.

ROLES OF LIBRARIANS

One of the most important duties of information professionals is to promote and provide instruction in the use of electronic resources, it is evident that the information professionals need to play a pivotal role in developing awareness about evolving application of the push and pull technologies. Information professionals have the experience and the skills to show how the web's content can be best delivered (push) or how to retrieved (pull) to solve problems. The roles of the Information professionals in the evolving information technology will include creating awareness amongst users to effectively use the pull and push technologies to meet their information needs without the predicament of information anxiety.

INFORMATION NEEDS

At the root of the problem of information-seeking behaviour is the concept of information need, which has proved intractable for the reason advanced by Wilson (2000), that is need is a subjective experience which occurs only in the mind of the person in need and, consequently, is not directly accessible to an observer. The experience of need can only be discovered by deduction from behaviour or through the reports of the person in need. In fact, the concept of motive may be of general use in the study of information-seeking behaviour since, if we assume that, for whatever reason, a person experiences an information need, there must be an attendant motive actually to engage in such behaviour. Within the general theory of motivation it is suggested that, when a motive is activated, a belief-value matrix within the individual is called on. The matrix is believed to contain images of objects that past experience has proved to be relevant for the satisfaction of the aroused need and that different objects will have different values associated with them relating to the believed level of success they will have in satisfying the person's need. Burnkrant, (1976)

Fiske, (1990), is of the notion that motive is implicit in gratification theory which has been developed in mass communications research and which assumes that an audience has complex needs that it seeks to gratify through the use of various media. The same message, transmitted through a medium, may be used by different individuals to gratify different needs. Rubin, (1986) also suggests that people are active seekers of information to gratify their needs. McQuail (1972) suggests four main categories of gratification, which fall mainly into what he called affective needs,

but for which, clearly, information may have a role in gratifying: That needs may have a cognitive component (as distinct from, for example, physiological needs such as hunger and thirst) is recognized in the concept of the need for cognition: the need to find order and meaning in the environment, which is also expressed as the need to know, curiosity, the desire to be informed. Cacioppo, et al. (1984) has devised a need for cognition scale, which has been tested not only in the USA, but also in Holland. The present author has considerable reservations about the usefulness of the scale, since a high degree of cognitive ability seems to be needed to complete it. However, the idea of a fundamental need which drives the search for information is seductive. In spite of the difficulties with the concept, various categorizations of information need have been produced. For example, Weigts, et al. (1993) suggest the following categories: need for new information; need to elucidate the information held; and need to confirm information held.

The mode of questioning in carrying out searches also identifies underlying information needs. In order to ensure better information service, there is a need to identify the population to be served, and its specific needs. Information needs in the digital age are such that they cannot be met adequately with the use of manual systems. This is because of drawbacks associated with manual systems such as delays, errors, as well as the physical and mental efforts required of staff and users of such systems. The primary purpose of an academic information system is to support teaching, learning, and research in ways consistent with, and supportive of, the institutions mission and goals.

INFORMATION SEEKING BEHAVIOUR

The present era is the era of information and knowledge revolution. Many electronic resources are available in the library. The increase in information on the Web has affected information seeking behavior. Innumerable types of information, in a large variety of containers and in many different locations, are all available in one place, Fidel et al. (1999). In the modern society, the types of information and the media which present them have become manifold and multifarious, offering men and women a vast selection. Regardless of which group in a human society is discussed, each one bases its actions upon current information. Philosophies emphasize the direct, experiential acquisition of knowledge in the material, physical plane of existence as the most proper form of information. So, no one can deny that knowledge and information are vital. There is a universal assumption that man was born innocent or ignorant and should actively seek knowledge. "Information seeking is thus a natural and necessary mechanism of human existence" Marchionini, (1995). Information seeking behavior is the purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking, the individual may interact with manual information systems such as a newspaper or a library, or with computer-based systems such as the Web, Wilson, (2000). Information seeking behaviour involves personal reasons for seeking information, the kinds of information and the ways and sources with which needed information which are being sought, Leckie, Pettigrew & Sylvain, (1996). Information seeking behavior is expressed in various forms, from reading printed material to research and experimentation.

Scholars, students and other faculties' members actively seek information from the various media available in libraries, e.g. encyclopedias, journals and, more currently, electronic media. Abels (2004) mentioned that the frequency of use of the Internet in 1998-2000 had greatly increased. At the same time, expenditures on monographs showed steady increase.

INFORMATION ACCESS

Information access is mainly concerns with ensuring that information users have opportunity to get to and use information. Libraries have always served as access points for information. Services have evolved from the days of closed stacks, through shelf browsing and card catalogue to institutional repositories. This historical migration has tried to satisfy the changing needs of users, including ease of access, interaction richness, and cost. Eisenberg, (1990) remarks that access is more important than ownership. The underlying issues become the provision of information resources in offices, hostels, classrooms, homes etc regardless of were the information is found. Lombardi (2000) on the other hand revealed that access is the paramount issue on users mind. Globally, electronic/digital services tend to develop as a response to technological, financial and cultural changes that was brought about by technological developments, and such pressures as increasing student numbers, financial constraints and ever higher user expectations. The Internet as a new invented technology holds the greatest promise humanity has known for learning and universal access to information. It allows students to broaden their academic experience, access important information and communicate to others within academic community. It is a

double-edge sword, as students can access any educational database, they can also be subjected to perverse and deviant topics. Faculty can use the Internet infrastructure to improve and supplement traditional courses and degree programme. Library holdings can be digitized and made available both on and off campus.

Mohammed (2001) observed that in any society, education and access to information should be seen both as the privilege and right of every citizen irrespective of gender and socio-economic differences, and that accessibility of information provides literacy skill to the recipient, offers acquisition of livelihood skills and assists the information seeker to make informed decision, thereby, making the right choice in life.

INFORMATION RESOURCES AND SERVICES

According to Stephanie (2008), information is diverse and is made available through a wide variety of information sources. These range from very specific source (primary source e.g. journals) aimed at specialists in the subject to general sources (tertiary sources e.g. books) aimed at a general public. The Internet plays a crucial role in the access of information resources. Sources of information and other opportunities available via the Internet are increasing exponentially. Stephanie further grouped information sources into twenty two starting with books, journals and electronic journals, conference proceedings, dictionaries, directories, encyclopedias, Newspapers, database, grey literature, company information, market research, theses

and dissertations, manuals, web sites, software, open archives, government information, patents standards, discussion lists and lastly professional colleagues.

The Internet, according to Wells (2000), is a computer mediated communication tool providing the individual with access to a broad spectrum of information using unique communication technologies. It is a giant network of computers that connects people and information all over the world. It is one of the newest and most exciting information sources. Its huge collection of information is also referred to as the "information superhighway" or a cyberspace". Sacramento Public Library (2007).

Internet can also been said to be world wide, publicly accessible network or interconnected computer networks that transmit data by packet switching using the standard Internet Protocol (IP). It is a "network of computer networks" that consists of millions of smaller domestic, academic, business and government networks, which together carry various information and services. Information services take a variety of forms including direct personal assistance, exchange of information culled from a reference source, reader's advisory service, dissemination of information in anticipation of users needs or interests, and provision of access to electronic information. These services take into account the information-seeking behavior, the information needs, and the service expectations of the members of the institution.

INTERNET ACCESS

Internet access refers to the means by which users connect to the Internet. Common methods of Internet access include dial-up, landline (over coaxial cable, fiber optic or copper wires), T- lines, Wi-Fi, satellite and cell phones. Dial-up connections are the most common type of Internet connection available from ISPs; they are also the slowest and (usually) the least expensive. A dial-up connection allows users to connect to the Internet via a local server using a standard 56k modem, the PC literally dials (hence the name) a telephone number (provided by the Internet Service Provider) and connects to the server's modem and therefore the Internet. Once connected users are free to search the web as they please, however, compared to modern speeds of broadband Internet, dial-up is very slow and can only nominally transfer at 56 Kilobits of data per second under ideal conditions.

Asymmetric Digital Subscriber Line (ADSL) connections provide broadband Internet and are becoming more widely available and can provide an excellent Internet connection. The connections work by splitting the function of a phone line into separate channels for voice telephone calls and for data (Internet). Thus, a user can talk on the phone and be connected to the Internet at the same time. ADSL connection services are sold with different speed specifications, below are some common configurations:

Wireless connections: Wi-Fi provides wireless access to computer networks, and therefore can do so to the Internet itself. Hotspots providing such access include Wi-

Fi cafes, where a would-be user needs to bring their own wireless-enabled devices such as a laptop or PDA. These services may be free to all, free to customers only, or fee-based. A hotspot need not be limited to a confined location. The whole campus or park, or even the entire city can be enabled. Grassroots efforts have led to wireless community networks.

Apart from Wi-Fi, there have been experiments with proprietary mobile wireless networks like Ricochet, various high-speed data services over cellular or mobile phone networks, and fixed wireless services. These services have not enjoyed widespread success due to their high cost of deployment, which is passed on to users in high usage fees. New wireless technologies such as WiMAX have the potential to alleviate these concerns and enable simple and cost effective deployment of metropolitan area networks covering large, urban areas. There is a growing trend towards wireless mesh networks, which offer a decentralized and redundant infrastructure and are often considered the future of the Internet.

Power line: Broadband access over power lines was approved in 2004 in the United States in the face of stiff resistance from the amateur radio community. The problem with modulating a carrier signal below 100 MHz onto power lines is that an above-ground power line can act as a giant antenna and jam long-distance radio frequencies used by amateurs, seafarers and others.

Methods & venues of connection

Besides accessing from residences, there are public places to use the Internet which would include libraries and Internet cafes, where computers with Internet connectivity are available. Some libraries provide stations that provide facilities for hooking up public-owned laptops to local area networks (LANs). There are also wireless Internet access points in many public places like airport halls, in some cases just for brief use while standing. These access points may provide coin operated computers or Wi-Fi hot spots* that enable specially equipped laptops to pick up Internet service signals. Various terms are used, such as "public Internet kiosk", "public access terminal", and "Web payphone". Many hotels now also have public terminals, though these are usually fee based.

INTERNET USERS AND USAGE

The use of the Internet around the world has been growing rapidly over the last decade, although the growth rate seems to have slowed somewhat after 2000. The phase of rapid growth is ending in industrialized countries, as usage becomes ubiquitous there, but the spread continues in Africa, Latin America, the Caribbean and the Middle East. Abels (2004) mentioned that the frequency of use of the Internet in 1998/2000 had greatly increased. Perhaps no other factor in the history of information and communication technology (ICT) has changed the face of information use and delivery as significantly as the swift emergence of the Internet and related web based applications in academic setting.

The Internet offers vast opportunities for users who are hungry for knowledge and information. A businessman can open a remote desktop session into his office computer using a secure Virtual Private Network (VPN) connection via Internet. He can access his normal files and data, e-mail, and other applications while he is in a business trip or on vacation. Internet users are responsible for the adjustment of security, authentication, and encryption technologies required in his remote access so that others will not be able to access his files and data.

Internet support thousands of different kinds of operational and experimental services, a few of the most popular include: e-mail, which allows a message to be sent from one person to another or to many others, via computer. World Wide Web allows the seamless creation and use of elegant point and click hypermedia presentations, linked across the Internet in a way that creates a vast open knowledge repository, through which users can easily browse. The use of the Internet in education allows a wide range of resources to be accessed, it allows users to engage in intellectual discourse, conduct meetings, share knowledge, make plans, brainstorm ideas, learn about other cultures and otherwise broaden their mental horizon. The Internet provides an activation of sight, sound and cognitive reasoning, engaging students as active learners.

The growth of the Internet has also been reflected in a growing literature that attempt to analyze the users. The most interesting aspects of this have been the use of the World Wide Web itself to conduct surveys of its use. One of such studies is that of Georgia technological graphics visualization usability center. These surveys provide

interesting statistics on the use and users of the Internet. The demographics of Internet users from these surveys indicate that they are predominantly male, fairly young (average age was 35 years), and tend to be university students, technical professionals or researchers. Another survey showed that among the frequent users of the Internet, www usage accounted for 75% of the usage. Craig (2007) user's characteristics survey showed that some variables such as location, gender, age, professional ranking, levels of education, teaching experience, computer experience and types of computer training affect Internet usage.

1.1 STATEMENT OF PROBLEM

Advances in computer applications during the past few decades have brought about radical changes in the way information is gathered, stored, organized, accessed, retrieved and consumed. The application of computers in information processing has brought several products and services to the scene. The Internet and the Web are constantly influencing the development of new modes of scholarly communication; their potential for delivering goods is quite vast, as they overcome successfully the geographical limitations associated with the print media. Furthermore, the distribution time between product publication and its delivery has been drastically reduced. Thus the Internet can be used for efficient retrieval and meeting information needs. This is very important for university libraries since most of them call for more and more research work. This important fact is convincing many libraries to move towards digital e-resources, which are found to be less expensive and more useful for easy access. This is especially helpful to distant learners who have limited time to

access the libraries from outside by dial-up access to commonly available electronic resources, mainly CD-ROM, OPACs and Internet, which are replacing the print media. Today the Internet is imbedded in our lives but still we are faced with lack of basic understanding of the systematic informational retrieval process coupled with information overload which is increasing our anxiety and frustration due to unsatisfactory results. Users of the Internet are overwhelmed by the quantity of information available to choose from. As observed by Fidel et al (1999) some students even adjust their research thesis to match the information they have already found. Previous investigations about the information seeking and retrieval were mainly focused on the technical aspects and the human and users' side has been neglected in some ways. It is on these bases that this research was conceived to investigate the phenomenon of anxiety as it affects users of Internet in Ahmadu Bello University, Zaria.

1.2 RESEARCH QUESTIONS

1. What kind of Internet Resources are used by Academic Staff and Postgraduate Students of Ahmadu Bello University, Zaria?

2. For what reasons do Academic Staff and Postgraduate Students in Ahmadu Bello University, Zaria use the Internet?

3. What are the causes of information anxiety among Academic Staff and Postgraduate Students in Ahmadu Bello University, Zaria?

4. What types of anxiety do the Academic Staff and Postgraduate Students in Ahmadu Bello University, Zaria exhibit when using the Internet?

5. How frequent do the Academic Staff and Postgraduate Students in Ahmadu Bello University, Zaria exhibit anxiety when using the Internet?

1.3 HYPOTHESIS

Ho 1 There is no significant difference in the type of Internet resources use between Academic Staff and Postgraduate Students in Ahmadu Bello University, Zaria.

Ho 2 There is no significant difference in the purpose of using the Internet between Postgraduate Students and Academic Staff of Ahmadu Bello University, Zaria.

Ho 3 There is no significant difference in the causes of Information anxiety between Academic Staff and Postgraduate Students of Ahmadu Bello University, Zaria.

Ho 4 There is no significant difference between Academic Staff and Postgraduate Students of Ahmadu Bello University, Zaria in the type of Anxiety they exhibit when using the Internet.

Ho 5 There is no significant difference between Academic Staff and Postgraduate Students of Ahmadu Bello University, Zaria in the frequency of Anxiety they exhibit when using the Internet.

1.4 OBJECTIVES OF THE STUDY

The goal of the study is as follow:

1. To identify the types of Internet resources used by Academic Staff and Postgraduate Students of Ahmadu Bello University, Zaria.

2. To determine the purpose of using the Internet by Academic staff and Postgraduate Students of Ahmadu Bello University, Zaria

3. To examine the causes of information anxiety among Academic Staff and Postgraduate Students of Ahmadu Bello University, Zaria.

4. To find out the type of information anxiety exhibited by Academic Staff and Postgraduate Students of Ahmadu Bello University, Zaria.

5. To discover how frequent do the Academic Staff and Postgraduate Students exhibit same information anxiety when using the Internet.

6. To proffer suggestions on mitigating the anxiety in the use of Internet by Academic Staff and Postgraduate Students of Ahmadu Bello University, Zaria.

1.5 SIGNIFICANCE OF THE STUDY

The significance of this study therefore, lies in the fact that the findings of the study would be of immense assistance to the administrators in the universities. Directors ICT and the academics to determined the strengths and weaknesses of Internet

facilities available. This will no doubt go a long way in encouraging the Nigerian Universities Commission and the University management to provide more ICT facilities that will contribute towards improving the quality of research and scholarship. The study will add to the literature on anxiety as an educational document for use by students, researchers, and academia as well as school administration by making the research findings potentially useful as well as accessible by its intended audience.

Finally, the findings of the study will contribute to the depth of literature on Internet and other electronic databases access and use.

1.6 SCOPE OF THE STUDY

This study is delimited to the Internet users in Ahmadu Bello University, Zaria. It covers Postgraduate Students and Academic Staff in the twelve Faculties of the university only. It does not include Academics in A.B.U affiliated schools and satellite campuses.

1.7 LIMITATION OF THE STUDY

The most obvious limitation of this study is the inability to cover the entire university population (i.e. undergraduate students), due to their size, time and the cost implication of carrying out such a task.

1.8 OPERATIONAL DEFINITION OF TERMS

The following terms are defined within the context of the study for more elaborate understanding.

ANXIETY: state of emotional and physical disturbance induced in a person by a real or imagined threat.

BANDWIDTH: Rate of data transfer.

BROADBAND: High speed Internet access

FILTERING: Systematic attempts to weed out useless information.

FTP: file transfer protocol

ICT: Information Communication Technology

INFOBESITY: situation of personal information overload, particularly if caused by a diet of information

INFORMATION ANXIETY: condition of stress caused by the inability to access, understand, or make use of necessary information

INFORMATION OVERLOAD: information received becomes a hindrance rather than a help, even though the information is potentially useful

INTERNET: It is a “network of computer networks” that consists of millions of smaller domestic, academic, business and government networks, which together carry various information and services.

LAN: Local Area Network

PULL TECHNOLOGY: User actively go and retrieve the information.

PUSH TECHNOLOGY: information sent in anticipation of the users need.
SURVEY MONKEY: Online survey research tool.
VPN: Virtual Private Network
WiMAX: New wireless technology
WITHDRAWAL: keeping the number of daily information minimum.
WWW: World Wide Web

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CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 INTRODUCTION

The literature review is done under the following subheadings: The use of Internet, Internet resources, the concept of Anxiety; types of Anxiety, the concept of Information Anxiety, causes of Information Anxiety and coping strategies of Information Anxiety.

2.1 INTERNET RESOURCES AND FACILITIES

In the scientific world of today, there is no room for the isolationist scientist, buried their own research microcosm and not participating with others. The traditional points of contact are scientific meetings, memberships of professional associations, local institutional activities and study sections, Graeme(1996) The Internet, as a global communication network, links scientists all over the world, providing them with a means of easy and prompt one-to-one contact for the exchange of data and information, group discussion and teleconferencing, collaboration on research work, access to databases and data repositories, as well as the benefit of a wide range of information services. The potential benefits of Internet services to scientists include:

- access to news, newsgroups, growing ideas, and a wealth of informal information;
- linking to colleagues worldwide, facilitating cooperation and collaboration;
- finding new colleagues;

- sharing an idea all over the world in a matter of minutes;
- learning who is pursuing the same interests in another discipline;
- access to library catalogues worldwide;
- access to databanks and databases in various institutions all over the world; and
- Public domain software packages for teaching and research. Kovacs (1995)

The use of the Internet in education allows a wide range of resources to be accessed, it allows users to engage in intellectual discourse, conduct meetings, share knowledge, make plans, brainstorm ideas, learn about other cultures and otherwise broaden their mental horizon. The Internet provides an activation of sight, sound and cognitive reasoning, engaging students as active learners. The Internet has many resources that can be harnessed by academics for good scholarly work. These include discussion groups, Usenet news groups, Telnet; file transfer protocol (FTP), e-mail, directories, search engines, information gateways and the World Wide Web (www), among others. According to Ciolek (1998), it became a feature of the scholarly information space in 1991 when Wide Area Information Server (WAIS) online databases, PC-based e-mail software, and Gopher catalogues links to information repositories and File Transfer Protocol archives of data were introduced. In September 1993, when the first modern software for hypertext navigation and display was introduced, the Internet became recognized as a worthwhile tool for scholarly work. It is therefore expected to have a significant impact on academic work of staff and students.

Some researchers, such as Applebee et al. (1997), have, however, mentioned that few studies have been published on how academics are using the Internet. Most of the published literatures, according to him are related to these areas:

* The development, general definition and terms relating to the facilities provided by the Internet.
* The impact of the Internet on libraries and library services, specifically how the Internet can improve library services.

A number of academic user studies on Internet use for teaching and research in Botswana such as Ojedokun and Owolabi (2000) have also reported that e-mail is the most used Internet resource by staff and students, other studies by Marklein (1997) on "e-mail is easy as ABC" also reported high e-mail use. It indicated that the use of e-mail by college students in the United States is so common that for some of them, "It is like picking up a phone". The survey data showed that 9.1 million college student's use e-mail regularly and 6.1 million uses it almost daily.

The predominant use of e-mail is also revealed in the results of a study conducted by Bishop (1994) on the role of computer networks in aerospace engineering". Bishop reported that electronic mail for one-on-one communication was the most used service (80 percent of them reported doing so).

In a related development, academic staffs are using the Internet in various ways to enhance teaching and learning. For example, in a study entitled 'Using the Internet as a teaching resources'; Jefferies and Hussain (1998) reported that teaching faculty construct web pages to help structure students' data gathering and provide access to a variety of ways of communicating with their peers and tutors. The researchers

emphasized the fact that students preferred to send e-mail to their tutors instead of the traditional face-to-face meetings. Additional uses of the Internet by the academic staff are to access library catalogues for information for teaching, and to obtain routine information such as conference announcements and job vacancies. Applebee et al., (1997).

With respect to the purposes for which academics use individual Internet services, the focus has been on e-mail use. In a study involving six small universities, Liebscher et al. (1995) reported a low frequency of use of e-mail for teaching purposes, while use for social purposes was high. This was followed by use for current awareness, research and administrative purpose. Most faculty members indicated they communicated with both international and departmental colleagues by e-mail. In an interview with some of the respondents, the researchers discovered that e-mail rather than telephone or fax was preferred because it reduced the language barrier in terms of having to deal with clerical and secretarial staff at the remote site in their own language before being connected to the appropriate person.

Writing from an African perspective, Moyo (1998) conducted a study to find out the impact of e-mail on academic work among the staff of the University of Botswana. The result showed that a majority of the respondents use e-mail facility solely for 'chatting' with international and local colleagues. Other uses in descending order were subscription to leisters, exchange of work-related information, subscription to electronic journals and magazines, participation in collaborative research projects and participation in electronic conferencing.

2.2 INTERNET USE

In the era of networked information, Internet, the largest worldwide network of networks, has emerged as the most powerful tool for an instant access to information. Information is now just at a 'finger touch' distance away from the user. Thus, Internet has become the biggest global digital information library which provides the fastest access to the right kind of information in seconds of time to the end-user at any time and at any place in the world. The Internet has become the most extensively used information source that empowers the average person to get the latest information. Today's users can no longer depend on conventional information sources to cope with the latest developments in their respective fields. Rajeev (2005). The Internet offers vast opportunities for users who are hungry for knowledge and information. Internet users are responsible for the adjustment of security, authentication, and encryption technologies required for remote access so that others may be unable to access files and data belonging to others. The Internet has emerged as a powerful educational tool. With the increasing impact of Information and Communication Technologies (ICTs) on higher education, all those concerned with higher education are attempting to grasp how ICT could help in modernizing the process of teaching, learning and research. With the advent of the Internet, the following dilemma arises in higher educational system.

- Learner is not dependent on teacher for interaction, and
- Teacher can give lectures virtually to unknown learner.

The use of Internet in education allows a wide range of informational resources to be accessed globally, Information resources are very well organized on the Internet, to allow for easy access and exchange, Hicks (2002). Students and teachers alike use the web because someone has already done the work of finding the information for them. The Internet allows students and teachers to "exchange greetings, engage in intellectual discourse, conduct meetings, share knowledge, offer emotional support, and make plans, brainstorm ideas, learn about other cultures, broaden their mental horizon" Baker (2000).Baker further noted that Internet provides an activation of sight, sound, cognitive reasoning and engage students as active learners. Through the Internet many different activities can be assigned to the students to enhance their education. Hicks concluded that the Internet is a double-edged sword. As students can access any educational data-base, learn about any country, they can also be subjected to perverse and deviant topics. Faculty can use Internet infrastructure to improve and supplement traditional courses and degree programs. Library holdings can be digitized and made available both on and off campus. Guernsey (2002) noted that universities in New York routinely provide Internet connections in residents' rooms, a circumstance that brings together the most powerful motivator of greater use, access, and education.

Ebersole (2002) pointed out that there are four basic types of Internet usage for students. These are:

i. Website which provides documents or collections of documents that can be ready for informational purposes. Other types of information gathering services are available on the Internet, including commercial information

services and research companies. Also, thousands of libraries are connected to the Internet, permitting even casual users to access their catalogues and request loans through inter-library programs. There are also a number of on-line journal, newspapers and trade magazines for use in the Internet. Much of the information in these publications is free, while some are accessible only by paid subscribers.

ii. E-mail is nothing more than sending and/or receiving messages through your computer. It combines the immediacy of the telephone with the word processing power of computer. Students use e-mail to keep in touch with friends and also to work on a project with someone a hundred kilometers away. E-mail is a low-cost form of communication unlike telephone or standard postal services; there are no volume or long distance charges for sending e-mail. One e-mail message can be sent across a city or even 10,000 messages to the other side of the world for the same fee.

iii. Chat rooms are where students can communicate with each other on the computer at the same time, typing messages to each other.

iv. Newsgroup is an electronic bulletin board. According to Alexander (1996), news group is an example of the use of Internet in facilitating the development of international perspective in students. He added that this encourages team work, effective communication and the ethics of social and political action. Alexander described how students enrolled in undergraduates subjects in politics of the Middle East at Macquarie University. They chose to take part in role play simulation conducted via the Internet. Special interest Usenet

newsgroups are excellent places to locate expertise in a given field. Newsgroups act as electronic bulletin boards, through which people exchange information, ask technical questions, offer solutions, and forge new contacts. One can log onto a newsgroup, check any or all of the messages that have been posted, add own message and or simply leave.

Matthew & Schrum (2003), in a random survey of 364 students in an Australian University on Internet use, revealed that students use the Internet for communicating with the professors through e-mails by asking for clarification or reporting information, e-mailing papers, and getting feedback. Also they use the Internet to get materials (web links, notes, quizzes, hints for tests etc.) from professional websites, check grades, and access resources from the Web.

Ebersole (2000) reported that the respondents to the computer administered survey gave the following reasons for using the Internet:

- Research and learning (52%)
- Communicate with other people (7%)
- Access to material otherwise unavailable (5%)
- Find something exciting/fun (8%)
- Finding something to do when bored (5%)
- Sports and game information (1%)

The above data shows that majority of the Internet users in an academic setting use it for research and learning, the implication of this is that high rate of anxiety will definitely affect scholarly work and productivity in our university.

2.3 THE CONCEPT OF ANXIETY

French (1997) defined anxiety as a state of emotional and physical disturbance induced in a person by a real or imagined threat. Anxiety may arise in a specific situation that the person seeks to avoid such a state is called phobia. Andreasen (2000), on the other hand, believes that anxiety is a term used by mental health professionals to mean the same as fear or worry. There are many definitions and interpretations of the term anxiety. They all refer to a complex combination of negative emotional responses that include worry, fear, apprehension and agitation. These responses are generally learned from direct experiences when a person comes in contact with a threatening object or situation. The experience of anxiety results from the perception-cognition of an event as personally or psychologically, which triggers the physiological response and various attempts to cope with the arousing stimuli. The feelings as postulated by Jinni (2004), of apprehension, tension, nervousness, and/or dread, together with physiological arousal stimulating the cardiovascular, digestive, sensory, endocrine, and musculoskeletal systems, give anxiety its unique character.

2.4 TYPES OF ANXIETY

The most common types of anxiety are generalized anxiety disorder, panic disorder, social anxiety disorder, phobias, obsessive compulsive disorder, and post-traumatic stress disorder. Bufka, (2007) others include; (a) Anxious technophobe: Exhibits the classic signs of an anxiety reaction when using technology: sweaty palms, heart palpitations and headaches. (b) Cognitive technophobe: On the surface is calm and relaxed, but internally seethes with negative messages such as “everybody but me

knows how to do this" or "I" will hit the wrong button and mess this machine up!"(c) Uncomfortable user: May be slightly anxious or use some negative statements, but generally not in need of one-on-one counseling. Oetting (1983) identified three types of anxieties, (a) Trait which he described as the general pervasive anxiety perceived by a person over the entire range of life experiences. From the foregoing people who exhibit high trait anxiety will exhibit computer anxiety more than a low trait anxious person.

(b) State anxiety is a feeling a person experienced at a specific time, the feeling fluctuate over time and react to a responsive situation and can be transferred to another similar situation, while (c) Concept – specific anxiety is a transitory – neurotic type of anxiety. It is a range between state and trait associated with specific situation. Computer anxiety is a concept specific anxiety because it is a feeling that is associated with a person's interaction with computer. On the other hand, Eysenck and Calvo (1992) categorized anxiety into two distinct areas (a) Worry which has a tendency to decrease an individual's ability to concentrate on a task while (b) Cognitive arousal influences a person's alertness and ability to do a task.

According to Miller (1978) as cited by David and Shoard (2005), information overflow results from the inability of living systems to process excessive amount of information combined with the fact that technology can generate information much faster than people can process it. This means people often find themselves unable to cope with an increasing amount of information, as postulated by Wurman (1989).

Ekman (1992) opined that anxiety is not considered a fundamental emotion (i.e. a single basic emotion) by those who focus on expressive behaviors because it involves one or more affects such as fear/fright, uncertainty, distress, apprehension, dread, and worry. Because anxiety most often involves fear, these three effects are frequently contrasted with respect to key features involving the stimulus: (a) specificity, (b) time, and (c) coping behaviors in response to the stimulus. The stimulus for fear is usually specific, identifiable, external, and the danger is imminent, whereas in anxiety, the stimulus is internal, less specific or clearly defined ("free-floating"), and entails existential threat American Psychiatric Association (APA 1994). The stimulus for fear occurs with the presence of the threatening object/situation, versus anxiety, which begins prior to the actual threatening stimulus Ohman (2000). Fear and anxiety both are related to coping: Fear stimulates avoidance and escape, and anxiety occurs when the threat is unavoidable. Anxiety also occurs far more frequently in everyday life and for longer periods of time than does fear. It can be the result of any one of several anxiety-eliciting situations: a witness about to testify, an undergraduate preparing to deliver a speech, a job applicant in an interview, a patient awaiting unusual diagnostic results, a shy individual anticipating a social gathering, or a tardy teenager expecting an angry father's rebuke.

In the last thirty years, a great deal of research has been focused on state and trait anxiety. State anxiety is considered a transitory or situational response to anxiety-eliciting stimuli such as, witness testimony, speech giving, and using computer for the first time etc. People according to Jinni (2004) vary greatly in their interpretation of events that are anxiety producing. Behavioral differences between individuals are

contingent on the presence of the anxiety-eliciting stimuli and the degree to which one's personality embodies features labeled as trait anxiety. Trait anxiety represents a chronic predisposition to attribute danger of threat to a greater range of stimuli and to experience high levels of state anxiety in situations that involve psychologically threatening material. Characteristics endorsed by those high in trait anxiety include feelings of worry, failure, inferiority, indecisiveness, and distraction. Information anxious individuals are more likely to suffer from trait anxiety since they worry, are distracted and are afraid of not getting what they are searching for. Thus, an individual low in trait anxiety may not interpret a particular even as threatening and not experience state anxiety. Whereas, an individual high in trait anxiety views the same event as potentially harmful and suffers the resulting state anxiety. High-trait anxious individuals also believe that their anxiety is apparently to others.

Jinni (2004) further revealed that the adaptive value of accurately diagnosing state anxiety in others is twofold. First, with respect to threat and danger, recognizing another's anxiety allows the viewer to avoid an imminent threat causing the other's anxiety or to help allay the other's anxiety. Second, and more commonly, in interactive settings, assessing another's anxiety provides information about how the viewer is being perceived and about the other's intentions.

2.5 THE CONCEPT OF INFORMATION ANXIETY

Information anxiety, a term coined by Wurman (2001) is usually taken to be a condition of stress caused by the inability to access, understand, or make use of necessary information. The cause of this may be either information overload or insufficient information. It may equally be due to poorly organized or presented

information, or a variety of other causes including lack of understanding of the information environment in which one is working. The rather similar condition of library anxiety was recognized and named as far back as 1986, by Mellon (1986) in his work, Library Anxiety: A grounded theory and its developments, and has been analyzed further since. This is a type of anxiety which leads to a sense of powerlessness when starting an information search in a library, such as feelings of being lost, inability to find one's way round, and being afraid to approach library staff.

Encarta (2005) described anxiety as emotional state in which people feel uneasy, apprehensive, or fearful. People usually experience anxiety about events they cannot control or predict, or about events that seem threatening or dangerous. For example, students taking an important test may feel anxious because they cannot predict the test questions or feel certain of a good grade. People often use the words fear and anxiety to describe the same thing. Fear also describes a reaction to immediate danger characterized by a strong desire to escape the situation.

The physical symptoms of anxiety reflect a chronic 'readiness' to deal with some future threat. These symptoms may include fidgeting, muscle tension, sleeping problems, and headaches. Higher levels of anxiety may produce such symptoms as rapid heartbeat, sweating, increased blood pressure, nausea, and dizziness, Wurman (2001). All people experience anxiety to some degree. Most people feel anxious when faced with a new situation such as first date, or when trying to do something well such as giving a public speech. A mild to moderate amount of anxiety in these situations is normal and even beneficial, this is because it can motivate people to

prepare for an upcoming event and can help keep them focused on the task at hand. However, too little anxiety or too much anxiety can cause problems. Individuals who feel no anxiety when faced with an important situation may lack alertness and focus. On the other hand, individuals who experience an abnormally high amount of anxiety often feel overwhelmed, immobilized, and unable to accomplish the task at hand. People with too much anxiety often suffer from one of anxiety disorder or mental illnesses. In fact, more people experience anxiety disorders than any other type of mental illness.

Information anxiety is a situation produced by the ever widening gab between what we understand and what we think we should understand. When information doesn't tell us what we want or need to know, it is normally attributed to information explosion, which has created a number of information problems like:

*The volume of information relevant to a clients needs might militate against efficient use.

*Information sources might not be written or recorded in the language or at the comprehension level of the client.

*Information sources might not address the information need from the point of view of the task, objectives, and context of the client.

*Available information might be coded in symbols, channels, or media that are unfamiliar or inconvenient for the client to process.

*Available information might be inappropriate in detail or complexity relative to the client's prior knowledge, experience, role or other information use characteristics, Wurman (1989).

Also, Wurman (1989) observed that computer anxiety in relation to information anxiety as a situation where people are faced with information overload which originate both from information actively requested /searched for and information received inertly, that is received whether or not the recipient wants or needs it or not. The anxiety in this case takes the form of general feeling of discontent and pervasive fear that computer will overwhelm everyone and consume us all through information overload. Sui (2001) believes that the phenomenon resulting from the combination of too much information and too little information processing capability will definitely result to information anxiety. For adult users, one clear obstacle in searching the Internet is their computer skills, in particular, operating the mouse and interpreting the navigation information on a screen. Another difficulty lies in the difference in search strategies required.

Ahmed (2004) pointed out that anxiety could be expressed in form of irritability, headache, nightmares, rejection to use computers etc. Other symptoms may include panicking or developing milder symptoms such as feeling of isolation and frustration, negative attitude toward computer based resources and systems, indifference to use computer related needs, self depreciation thoughts and statement about ones ability to cope, apologetic attitudes towards users, and definition of self as someone who could not succeed. Gbaje (2006) is of the opinion that users of electronic resources are overwhelmed by the number of hits resulting from search query with limited ability to refine or make precise search. He added that it is as a result of development of web technology which made it possible for anyone with access to the technology and the

skills to publish on the web. This has led to an exponential increase in electronic documents with dynamic nature.

Finding involves the process of looking for something or information. The purpose and scope of a finding activity may be well defined (e.g., find Rob Capra's Web page), or may be more vague (e.g., find information about the history of library). Finding, by nature, is an exploratory process. The searcher is looking for something not found before in somewhere unknown to him. This has some level of uncertainty about what (if anything) will be found and where it will be located. This level of uncertainty leads to a phenomenon known as information anxiety, Delaney (2007). Certainly, there are some finding tasks for which users are confident of their outcome based on previous experience with similar tasks. However, many finding tasks do involve uncertainty, both in terms of where the desired information will be found, and how to go about searching for it. Bell (2004), opined that infobesity is a term increasingly used to denote a situation of personal information overload, particularly if caused by a diet of information, akin to feasting on fast food. It is often dealt with by the simple, if not brutal, tactic of information avoidance: by ignoring relevant information and useful information sources because there is too much to deal with. David (2008) identifies similar phenomenon of information withdrawal, keeping the number of sources considered to a minimum as well as more implicit filtering strategies with a raping weeding of material of limited use.Satisficing is a popular heuristic way of coping. Taking just enough information to meet a need rather than being overwhelmed by all the information available, just enough information is good enough. This form of behavior, also known as 'bounded rationality', was identified

by the economist, Simon (1955). Solution to information overload, revolved, generally around the principle of taking control of one's information environment. Too much information may actually reflect too much to do, too much activity or too many diverse duties. This not only avoids the effect that one is controlled by information, but avoids the feelings of powerlessness noted earlier as being aspects of the 'anxiety', Tebbutt (2008).

Web 2.0 must be rational and personalized, to be effective. Rationality will avoid some of the pointless 'knee jerk' solutions proposed, such as 'e-mail free Fridays'. Personalization will respect the fact that information use is individual and contextual in terms of information and knowledge, one person's overload is another's lifeblood.

In one way or another most people most of the time will practice a Satisficing approach to information acquisition and use. There is simple too much choice of potentially relevant diverse information readily available for a 'perfectionist' approach to be feasible, except in the most unusual circumstance. The important point is that this Satisficing must be practiced rationally, rather than arbitrarily or thoughtlessly, as documented evidence suggests is all too often the case.

In attempting to examine Information anxiety, David (2008) is of the view that the context in which the problem arise is the 'digital transition'; that is the move towards a situation in which most significant professional and scholarly and a good deal of information which is neither professional nor scholarly – is available in digital rather than printed form. Beginning in the 1970s, this trend has been exacerbated by the rise of the Internet, and more specifically the World Wide Web, in the 1990s, and later by the advent of the social networking tools of Web 2.0.

Kirch (2000) believes that these technical advances have led to a much more rich and complex information environment, with a greater amount of information available, in a greater variety of formats and types of information resource, and accessible through a greater variety of media and communication channels. This diversity of provision, however, is typically delivered through a limited number of interfaces: most usually a web browser, whether on a computer screen, a mobile device, an e-book reader or some other device. The result is a 'homogenizations' of the information, with the look and feel of different resources of the print age – a text book, a newspaper, a hand-written diary entry, a photo-copy of a journal article, a printout of a data file, etc. – being largely lost. It is this 'homogenized diversity' of information communication which lies at the root of the problems discussed here, as much as the expanded volumes of information which are available. The idea that there is too much information to handle, exacerbated by the multiple formats and channels available for its communication, has led to the concept of information overload, perhaps the most familiar of the 'information pathologies'. Other consequences include conditions termed infobesity, information avoidance, information anxiety and library anxiety. They may be understood in terms of a general 'paradox' of choice.

There is no single generally accepted definition of information overload. The term is usually taken to represent a state of affairs where an individual's efficiency in using information in their work is hampered by the amount of relevant and potentially useful information available to them. The information must be of some potential value, or it could simply be ignored, and it must be accessible, or the overload will only be potential not actual. The feeling of overload is usually associated with a loss

of control over the situation, and sometimes with feelings of being overwhelmed. This can according to Eppler and Mengis (2004), be all summed up by the idea that information overload occurs when information received becomes a hindrance rather than a help, even though the information is potentially useful. The question, therefore, is how can this hindrance be reverse in order allow Internet users access the required information without stress.

2.6 CAUSES OF INFORMATION ANXIETY

Gos (1996) revealed that prior computer experience correlates with current computer anxiety. This may imply that the students with unpleasant prior computer experience tend to be computer phobias unlike their counterparts who do not, due to their pleasant prior computer experience. While the former shows negative attitude towards computer use, the later shows positive attitude. Also, in a study conducted in the United State of America, Rosen and Weil (1995) reported that, out of the 488 teachers that were surveyed in elementary and secondary schools, between one-third and two-thirds of them were not using computers, due to their lack of confidence or felt frightened by computers. While corroborating this view, Russell and Brandley (1997) stated that "teachers' lack of confidence in their ability to use computers effectively in classrooms can be understood as a form of computer anxiety or cyber phobia." Ganzel (1998) was of the view that several computer users feel anxious when they deal with computer system, especially at the initial stage of interaction. However, the users' initial anxious feelings will be overcome, replaced with favorable perceptions as they familiarize themselves with the system interface and functionality. There is no doubt that the bottom line of Ganzel's view is experience. On the issue of

experience, Stephen (2008) stated that students with little or no computer experience have more computer anxiety, compared with their counterparts who have computer experience. The likely implication of this is that reduced computer anxiety further increases computer usage, thus enhancing a user's positive attitude to computer use. In a related development, Anderson (1996) documented that computer anxiety has been shown to affect students approach to the use of computers while embarking on their studies. The implication of this may be a show of negative disposition to IT use. Supporting this notion, Doyle, (2005) opined that "individuals who suffer from computer anxiety usually display negative behaviour and physiological reactions to computer." Some instances of the negative behaviour such as: avoidance of use of computers, minimizing the use of computers with extra care has been pointed out by scholars like Anderson (1996).

In the area of physiological reactions to computer use, Adeyinka (2007) identified issues like dizziness, sweaty palms and shortness of breath. It is obvious therefore that the identified negative behaviors and psychological reactions may lead to people's perception that computer is difficult to use. For instance, study such as Rosen and Weil (1995) showed that teachers in elementary and secondary schools in the United States of America actively avoided the use of computers whenever the gadgets were available. On the effect of computer anxiety on its use by people, it has been observed that when educators become computer anxious, it is seen as a stumbling block to integrating computers into educational programs.

In order to wrap up the effect of computer anxiety on computer use, Yazdan (2004) discovered that a high level of computer anxiety has been found to be negatively

related to learning computer skills, resistance to the use of computers and poorer task performance. However, satisfying the information needs on the Web is not always an easy and straightforward process. Web searching might be very time-consuming and may culminate in unsatisfactory results as well. Some of the reasons for creating new search environment include:

(a) Surprising and uncontrolled expansion of electronic information in a very uneven, heterogeneous and unstructured environment. Due to the easiness and publicly accessibility of web-based publication facilities every moment new pages appear on the Web without any control on the contents, structure and quality of the information. Consequently, the Web network is a highly dynamic.

(b) Lack of a logical coincidence between the advance of computer technology in terms of technical sophistication and human computer interaction.

(c) The rising number of inexperienced users. Previously computer-based equipments were mainly employed by specialist groups, now the majority of the public need to have interaction with different computer-based implements. Some research indicates that unfamiliarity with search tactics creates difficulties for many users of online information retrieval systems, Haverkamp and Gauch (1998) concluded in their report the that majority of Web users are not very sophisticated searchers. They prefer known sites browse using only simple searches when using search engine, substitute words but not necessarily using other tactics to modify a search, very trust information on the Web and

sometimes be relatively non-discriminating in recognizing relevant information.

Of all these highlighted point, the ability to locate information is perhaps the most critical as much of what is done on the Internet stems from our ability to adequately search for specific information. As the size of the Internet increases, efficient access to information becomes increasingly more difficult, Laurie (2005). The results from a single search task on the Internet can produce an overwhelming amount of information overload. It takes having the ability to search in a strategic and concise manner to curtail the numerous possibilities that can inundate a searcher and prevent a virtual bottleneck that prohibits access to information. Obviously, information is worthless unless it can be efficiently located and retrieved.

2.7 COPING STRATEGIES OF INFORMATION ANXIETY

Solution to information overload, revolved, generally around the principle of taking control of one's information environment. Too much information may actually reflect too much to do, too much activity or too many diverse duties. This not only avoids the effect that one is controlled by information, but avoids the feelings of powerlessness noted earlier as being aspects of the 'anxiety'. The methods by which reduction of anxiety is done are often rather 'traditional', and not necessarily strongly associated with information management per se. They include time management, desk management, critical thinking, information organization (including good use of metadata), and cultivation of a rational personal information management style. Appropriate use of information technology by use of techniques of filtering,

withdrawal and personalization, and the avoidance of over-much ‘push’ technology is also often presented as a solution, Gbaje (2007).

2.8 SUMMARY OF THE REVIEW

The chapter reviewed literatures that are related to the area of the study. From the review, the concept of Anxiety was highlighted. The role Internet is playing in bringing about research excellence is equally discussed. The studies reviewed are similar to the present study. They explore the use and access to the Internet, purpose for which the Internet is use and Internet resources.. Information anxiety among the Internet users in Ahmadu Bello University, Zaria is the focus of the present study. It most be noted that most of the work reviewed in this study emanate from other countries that are more advanced in Information Technology. However, attempts were made to bring to light current problems and efforts aimed at alleviating anxiety and quicker access to Internet by users. It is therefore, hoped that the result of this study will both enhance the use and facilitates access to Internet resources

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CHAPTER THREE

RESEARCH METHODOLOGY

3. O INTRODUCTION

This chapter discusses the methodology used in conducting the research. This includes the research method adopted, population of the study, sample and sampling techniques, Instruments for data collection, procedures for data collection and data analysis.

3.1 RESEARCH METHOD ADOPTED FOR THE STUDY

Survey research method was adopted for the study. Survey research method is defined by Abdussalam (2008) as a study in which a random sample is taken from a well defined population, data is collected from the sample, a statistic is calculated from the data and the statistics is used to estimate the true value (parameter) in the population. Chava (1992) is of the opinion that a survey design provides a qualitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. This method is found appropriate for the study because the researcher collected data by asking people (Internet users) who have experience certain phenomena (information anxiety) to reconstruct these phenomena and it requires the use of sample to gather data from which certain values are calculated to estimate the value in the population.

3.2 POPULATION OF THE STUDY

For the purpose of this study the population was limited to the Post Graduate Students and Academic Staff in all the twelve faculties of the University. Although, according to records obtained from MIS/ICT unit (2009) of Ahmadu Bello University, Zaria,

There are 6,155 Post Graduate Students and 1,577Academic Staff. The choice of these population groups is based on the fact that they are supposed to be involved in productive research, which results into, seminar and conference paper, proposal writing, lecture notes, thesis etc and might require the use of Internet. In addition, they form the major group who are likely to provide the information required for the study

3.3 SAMPLE AND SAMPLING TECHNIQUE

Rossi (1983) and Hernon (1994) recognized that the determination of sample size is a major problem for researchers. They postulated a theory that a research should seek the empirical approach that uses sample sizes as a way of solving the problem.

Out of the total number of 6,155 Post Graduate Students and 1,577Academic Staff.1, 232 (20%) and 316 (20%) were selected respectively. This sample size of 20% was found adequate because it is sufficiently large enough to be a representative of the study population also, in order to arrive at a more reasonable and realistic conclusion that would apply to other users which the study could not cover and to open room for generalization. A proportional Stratified random sampling was also used to select the sample size, because this research involves different predisposition Students/ Lecturers, Males /Females, and different faculties with different programmes. The researcher adopts stratified sampling to ensure that different groups of the population are adequately represented. This According to Chava (1992) is to increase the level of accuracy in estimating parameters.

3.4 INSTRUMENT FOR DATA COLLECTION

Questionnaire method of data collection was adopted because the type of data required for the research was largely quantitative and descriptive in nature. The choice of this instrument was also valid given the geographical spread of the faculties to be tested. Anthony (2006) sees questionnaire as an impersonal survey method and has an advantage of low cost, reduction in biasing error, greater anonymity, considered answer and consultation including accessibility. One set of structured questionnaire was constructed for both the Academic Staff and the Postgraduate Students. The questionnaire was divided into two parts;

Section A,: Personal data ,:Section B:, data relating to the issue under study. This part was further divided into five sections, each section targeted at the research question raised in the study.; Internet access/facilities available, types of Internet resources /services, reasons for the use of Internet, types of anxiety, causes of Information anxiety. To score the questionnaire, Likert scale type is given. The respondents responded to questions by selecting any of the alternatives.

3.5 VALIDATION OF THE INSTRUMENT

In order to ensure that the questionnaire is capable of eliciting the required data and information from respondents the instrument was subjected to face validation. This is where it is presented to expert to check and make necessary observation, corrections and amendments to strengthen the instrument.

3.6 RELIABILITY OF THE INSTRUMENT

The reliability of the instruments was established by conducting a pilot study within two weeks in Bayero University Kano and fifty academics and postgraduate students were issued the research instrument. The reliability of the questionnaire was determined using a split half technique; here the internal consistency of scores using scores from a single testing is used. A single test is administered but two scores are obtained for each individual, this means that the test is divided into two halves and sub-scores are obtained for each half. The two sub-scores are then correlated using t-test independent analysis to get the reliability co-efficient alpha of the scale. The general reliability co-efficient of each of the various questions included in the scale is r=0.78.

3.7 PROCEDURE FOR DATA COLLECTION

The questionnaires were distributed to both staff and student of the twelve faculties by the researcher; both hard copies and soft copies were produced. Post Graduate lecture halls were used as a venue for Post Graduate students where as the distribution of questionnaires to staff was done office to office, research assistant assisted the researcher in retrieving the hard copies questionnaires after two months of their distribution, whereby the soft copies were retrieved by the researcher using survey monkey software.

3.8 PROCEDURE FOR DATA ANALYSIS

Two statistical methods were used to analyze the data collected. Descriptive and Inferential. Responses from research questions were analyzed by descriptive statistics using tally system which records the number of positive, negative, and uncertain

responses of the respondents to each of the question raised. This was first represented in ordinary numerals then expressed as percentages of the total number of respondents and then shown in tables and graphs. The percentages showed the rate of scores or the responses obtained within a particular range of respondents.

The null hypotheses raised in the study were tested using T-test independent. This statistics was adopted because the researcher is dealing with samples that are randomly selected, independent, and are in two groups. Other factors that made him choose T-test include: the data is at interval scale of measurement, homogeneity of variance and normality of the distribution.

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CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 INTRODUCTION

This chapter presents the data collected, analyzed and discussed according to the research questions and hypotheses raised in the study.

4.1 RESPONSE RATE

Out of 1548 copies of questionnaires distributed to both academic staff and post graduate students in the twelve faculties of Ahmadu Bello University, Zaria, 1283 copies (83.00%) were duly completed and returned. This high response rate could be attributed to the adoption of Survey Monkey software as instrument by the researcher in collecting the responses. Survey Monkey is an online survey tool that enables people of all experience levels to create their own surveys quickly and easily. The software enables users to create their own Web-based surveys by collecting responses via web link or email. Response rate of the respondents by their faculties is presented in the table 4.1 below.

Table 4.1 RESPONSE RATE

S/No	FACULTY	Academic Staff			Post graduate Students		
		No of questionnaire Distributed	No Returned	%	No of questionnaire Distributed	No Returned	%
1	ADMINISTRATION	24	22	91.6	262	212	80.9
2	AGRICULTURE	24	21	87.5	65	60	92.3
3	ARTS	24	23	95.8	76	61	80.2
4	EDUCATION	24	21	87.5	210	170	80.9
5	ENGINEERING	34	31	91.1	68	55	80.8
6	ENVIRONMENTAL DESIGN	26	24	92.3	112	90	80.3
7	LAW	10	9	90.0	54	43	79.6
8	MEDICINE	44	39	88.6	20	16	80.0
9	PHARMACEUTICAL SCIENCES	14	13	92.8	34	27	79.4
10	SCIENCES	50	45	90.0	161	130	80.7
11	SOCIAL SCIENCES	18	17	94.4	132	106	80.3
12	VETERINARY MEDICINE	22	20	90.9	38	30	78.9
	TOTAL	316	285	90.19	1232	998	81.01

The table above shows that Academic staff from faculty of Arts recorded the highest response with 23 (95.8%) respondents; followed closely by Social Science with 17 (94.4%) respondents. While the faculty with the least response was that of Agriculture and Education with 21 (87.5%) respondents. The differences in the response rate are mainly due to the population size of the respondents by their faculties since the administering is done proportionately. The same table revealed that majority 60 (92.3%) of the Post graduate students that responded were from faculty of Agriculture. This was followed by faculty of Education and Administration with (80.9%) respondents. The least response 30 (78.9%) came from the faculty of Veterinary Medicine. The implication of these is that no faculty was short change; faculty with high number of students recorded a high response rate vice versa, this will enable the results to be generalized.

4.2 DATA ANALYSIS

This section seeks to present the analysis of data collected for the study. In order do so, the presentation and analysis of the data was done under two sub headings: descriptive analysis and inferential analysis.

4.2.1 Descriptive Analysis

This section analyses and discusses data collected for the purposes of answering the five research questions raised in the study. Frequencies and Percentages were use to compute and present the results.

4.2.2 Types of Internet resources use by Staff and Students in Ahmadu Bello University, Zaria

In an attempt to ascertain the Internet resources used by the Internet users in Ahmadu Bello University, Zaria, the respondents were asked to indicate which Internet resource they always use from the options provided in table 4.2 below.

Table 4.2 Type of Internet resources used by Staff and Students in Ahmadu Bello University, Zaria

S/No	Type of Internet Resources	Type of Respondents			
		STAFF		STUDENTS	
		Response rate	Response Percentage	Response rate	Response Percentage
1	e-mail	257	20.74	903	21.38
2	e-books	114	9.20	380	9.00
3	e-journal	257	20.74	858	20.32
4	Directories	100	8.07	332	7.86
5	Usenet/Newsgroup	57	4.60	190	4.50
6	Databank	0	0.00	0	0.00
7	Databases	240	19.38	799	18.94
8	Others	214	17.27	760	18.00
Total		1239	100.0	4222	100.0

N.B: Responses more than the respondents due to multiple choice question.

The table revealed that a majority of the Academic Staff 257 (20.74%) considered e-mail and e-journal as the most used Internet resource. However, 903 (21.38%) and 858 (20.32%) of Postgraduate Students went for e-mail and e-journal respectively. Databases recorded 240 (19.38%) of the Academic Staff and 799 (18.94) of Postgraduate Students. The predominant use of e-mail is also revealed in the result of a study conducted by Bishop (1994) on the role of computer networks in aerospace engineering". Bishop reported that electronic mail for one-on-one communication was the most used service (80 percent of them reported doing so).Similarly, the finding

support a study by Matthew & Schrum (2003), in a random survey of 364 students in an Australian University on Internet use. The finding revealed that students use the Internet for communicating with the professors through e-mails, to ask for clarification or report information, e-mailing papers, and getting feedback. Also, they use the Internet to get materials (web links, notes, quizzes, hints for tests etc.) from professional websites, check grades, and access resources from the Web.

4.2.3 Internet Access by Staff and Students in Ahmadu Bello University, Zaria.

The researcher provided the respondents with options on different ways of getting Internet services. They were requested to indicate which option(s) they use in getting connected to the Internet. The data collected in this regard was analyzed and presented in table 4.3 below.

Table 4.3 Internet Access by Staff and students in Ahmadu Bello University, Zaria.

S/N0	Types of Internet Access	Type of Respondents			
		STAFF		STUDENTS	
		Response rate	Response Percentage	Response rate	Response Percentage
1	Campus Internet Café	16	4.40	53	4.20
2	Off campus Internet Café	48	13.20	158	12.50
3	Personal subscription	95	26.00	315	25.00
4	University Hotspot	206	56.40	736	58.30
Total		365	100.0	1262	100.0

N.B: Responses more than the respondents due to multiple choice questions

The table above revealed that majority of the respondents [Academic Staff 206 (56.40%) and Postgraduate Students 736 (58.30%)] patronized the University hotspot

more than any other form of connectivity. This was closely followed by Personal subscription with academic staff recording 95 (26.00%) and post graduate students 315 (25.00%) respectively.

This finding looks interesting because it shows that Ahmadu Bello Universities, Zaria have woken up to the challenge of Internet provision. The high percentage recorded by the use of University hotspot is similar to an earlier study conducted by Guernsey (2002) in which he discovered that universities in New York routinely provide Wireless Internet connections in residents' rooms, a circumstance that brings together the most powerful motivator of greater use, access, and education. The high percentage recorded by Personal subscription is also a very good development. This is because GSM companies like MTN, Starcomms and Zain etc offer dial-up connection at very affordable prices.

4.2.4 Places where Internet is mostly used by Staff and Students in Ahmadu Bello University, Zaria.

The researcher provided eight options relating to different places where the respondents can get connected to the Internet within the University. They were requested to indicate which of the options they mostly use. The data collected in this regard was analyzed and presented in table 4.4 below.

Table 4.4 Places where Internet is mostly used by Staff and Students in Ahmadu Bello University, Zaria.

S/No	Places of Internet Use	Types of Respondents			
		STAFF		STUDENTS	
		Response rate	Response Percentage	Response rate	Response Percentage
1	Cyber café	29	10.10	143	14.32
2	University Hotspot	43	15.00	143	14.32
3	Department	86	30.18	285	28.55
4	Faculty	71	25.00	238	23.84
5	Institute	14	4.90	47	4.70
6	Centre	0	0.00	0	0.00
7	Home	42	14.73	142	14.22
Total		285	100.0	998	100.0

Table 4.4 above revealed that both the Academic Staff 86 (30.18%) and Postgraduate Students 285 (28.55%) indicated that they mostly used Internet at the department, followed by the Faculty connection. They attributed it to the proximity of such facilities to their offices and lecture halls. A majority of them 43 (15.00%) academic staff and 143 (14.32%) postgraduate students mentioned Kashim Ibrahim library, and hall of residences as other places where they get their wireless Internet access. The implication of this finding is that more Internet access to the University community may translate to quality teaching, research and learning.

4.2.5 Adequacy of Internet facilities used by Staff and Students in Ahmadu Bello University, Zaria

In order to find out whether the Internet facilities available are adequate for use by the respondents or not, they were requested to indicate their responses using 5 point Likert scale. The data collected in this regards were analyzed and presented in table 4.5 below.

Table 4.5 Adequacy of Internet facilities use by Staff and Students in Ahmadu Bello University, Zaria

S/no	Internet Facilities	Respondents	Very adequate	Not adequate	Undecided	Response %
1	Institute	Staff	36 (12.65)	(71)24.91	(178)62.45	100
		Students	100 (10.02)	(499)50.0	(399)39.98	100
2	Faculty	Staff	225 (78.92)	(44)15.43	(22)7.70	100
		Students	665 (66.63)	(266)26.65	(67)6.72	100
3	Home	Staff	84 (29.46)	(58)20.37	(143)50.17	100
		Students	273 (27.33)	(272)27.28	(453)45.39	100
4	University Hotspot	Staff	182 (63.85)	26 (9.12)	(77)27.03	100
		Students	712 (71.36)	143 (14.32)	(143)14.32	100
5	Cyber Cafe	Staff	114 (40.0)	28 (9.83)	(143)50.17	100
		Students	332 (33.27)	83 (8.32)	(583)58.41	100
6	Department	Staff	271 (95.08)	-	(14)4.92	100
		Students	999 (100)	-	-	100

The table above revealed that both the Academic Staff 271 (95.08%) and Postgraduate Students 999 (100%) were in agreement with the adequacy of Internet in their departments. However, they were not in agreement in such areas as: Faculty where 225 (78.92%) Academic Staff rated it high as against 665 (66.63%) Students. On the other hand 712 (71.36%) Students as against 182 (63.85%) Staff prefers University Hotspot. Thus, it could be said that departmental Internet connection is very adequate compared to other Internet connectivity available in Ahmadu Bello University, Zaria

4.2.6 Ways of acquiring Internet skills by Staff and Students in Ahmadu Bello University, Zaria: In order to determine how the Academic Staff and Postgraduate Students learn how to use the Internet, they were requested to select from the options provided on different ways of acquiring computer/Internet skills. Their responses were computed and presented in table 4.6 below.

Table 4.6 Ways of acquiring Internet skills by Staff and Students in Ahmadu Bello University, Zaria

S/No	Methods of Acquiring Internet Skills	Type of Respondents			
		STAFF		STUDENTS	
		Response rate	Response Percentage	Response rate	Response Percentage
1	Self study/Instruction	16	4.80	213	12.60
2	Family, friends, colleagues	57	17.10	583	34.70
3	Guidance from library staff	86	25.80	100	6.00
4	Formal Courses	41	12.30	332	19.70
5	University organized training	133	40.00	454	27.00
Total		333	100.0	1682	100.0

N.B: Responses more than the respondents due to multiple choice questions

The table revealed that 133 (40.00%) Academic staff learnt to use the Internet through University organized training by the University computer centre, Net library and other organs of the University, while 583 (34.70%) Postgraduate Students learnt the Internet through family, friends and colleagues. Following closely is guidance from library staff with 86 (25.80%) for Academic Staff and 100 (6.00%) for the Postgraduate Students. These findings shows that while the staff depend mostly on University organized training to develop their computer/Internet skills, the students make use of other avenues to improve their skills apart from the in house training opportunities provided by the university. This finding is in line with what Ekwelem (2009) found out that majority of academic staff learn how to use the Internet through programme organized by the university while most of the postgraduate students learn by self instruction. This calls for the University organised computer /Internet trainings and workshops to be regularly held and expanded to cover all and sundry.

4.2.7 Hindrances/barriers to using the Internet by Staff and Students in Ahmadu Bello University, Zaria

The researcher tried to find out the hindrances/barriers users faced when using the Internet. The respondents were given various barriers to indicate their opinions. Table 4.7 below shows their responses.

Table 4.7 Hindrances/barriers to using the Internet by Staff and Students in Ahmadu Bello University, Zaria

S/No	Types of Hindrances/barriers	Types of Respondents			
		STAFF		STUDENTS	
		Response rate	Response Percentage	Response rate	Response Percentage
1	Lack of Time	190	42.80	683	43.30
2	Lack of Money	63	14.20	210	13.30
3	Lack of Training Skills	16	3.60	53	3.40
4	Too much Information	95	21.40	367	23.30
5	Too Little Information	32	7.20	105	6.70
6	Limited Access to Computer	48	10.80	158	10.00
Total		444	100.0	1576	100.0

N.B: Responses more than the respondents due to multiple choice questions

From table 4.7, it can be deduced that a majority of the Academic Staff 190 (42.80%) and Postgraduate Students 683 (43.30%) greatest barrier to using the Internet was lack of time. This is not surprising because navigating the Internet is time consuming, especially in the day time, due to small bandwidth and other connectivity problem like power outages. This makes most of the students to go on night browsing. Following closely to lack of time is too much information on the net. About 95 (21.40%) of the Academic Staff and 367 (23.30%) Postgraduate Students indicated that too much information on the Internet is a major hindrance to using the Internet. This finding is in line with what Allen and Shoard (2005) found out that new Information and Communication Technologies, aimed at providing rapid and convenient access to information, are themselves responsible for a high proportion of the overload effect. Thus, the likely implication of this is that reduced overload effect

like increasing the bandwidth size, further increases Internet usage, thus enhancing a user's positive attitude to Internet use.

4.2.8 Search engine used by Staff and Students in Ahmadu Bello University, Zaria

The researcher tried to discover the search engine used by the academic staff and post graduate students of Ahmadu Bello University, Zaria. The respondents were presented with some search engines to choose from. Their responses were presented in the table 4.8 below.

Table 4.8 Search engine use by Staff and Students in Ahmadu Bello University, Zaria

S/No	Types of Search Engines	Types of Respondents			
		STAFF		STUDENTS	
		Response rate	Response Percentage	Response rate	Response Percentage
1	Yahoo	228	36.30	760	35.60
2	Google	271	43.20	950	44.50
3	MSN	43	6.80	142	6.60
4	Alta vista	86	13.70	285	13.30
5	Melzoo	0	0.00	0	0.00
6	Others	0	0.00	0	0.00
Total		628	100.0	2137	100.0

N.B: Responses more than the respondents due to multiple choice questions

A larger proportion of the respondents indicated the use of Google search engine with 271 (43.20%) of the Academic Staff and 950 (44.50%) of the Postgraduate Students. Following closely is 228 (36.30%) of the Academic Staff and 760 (35.60%) of the Postgraduate Students who use Yahoo being the second most prominent search engine. Lastly is the Alta vista with 86 (13.70%) of the Academic Staff and 285 (13.30%) of the Postgraduate Students. This finding is in line with what Thompson

(2003) discovered that most Internet users consistently begin their searches with commercial search engine ‘Google’ instead of using more reliable point such as Library databases or the Library homepage. Ekwelem (2009) also stated that Google and Yahoo are the most used search engines in University of Nigeria Nsukka. The implication of this finding is that most of the respondents waste their precious time googling and yahooing instead of going straight to more reliable databases and metadata search engines. More publicity is therefore required to educate the university community of the existence of these databases and other metadata search options i.e. (Dublin core and MARC 21) both available on the library homepage and the net library.

4.2.9 Levels of awareness of the kinds of Databases available to Staff and Students in Ahmadu Bello University, Zaria

In order to find out if the respondents are aware of the existence of some specialized databases in the main library’s subscription list and links provided in the library’s homepage, the respondents were requested to indicate their opinions on the issue using the Likert 5 point scale of measurement. Their responses are presented in the table 4.9 below.

Table 4.9 Levels of awareness of the kinds of Databases available to Staff and Students in Ahmadu Bello University, Zaria

S/No	Kinds of Databases	Respondents	Highly Aware	Not Aware	Undecided	Response %
1	HINARI	Staff	285 (100)	-	-	100
		Students	998 (100)	-	-	100
2	JSTOR	Staff	270 (94.74)	15(5.26)	-	100
		Students	948 (95.00)	50(5.0)	-	100
3	PROTA	Staff	428 (42.88)	428(42.88)	142(14.22)	100
		Students	498 (46.58)	428(40.03)	143(13.39)	100
4	OARE	Staff	285 (100)	-	-	100
		Students	998 (100)	-	-	100
5	AGORA	Staff	285 (100)	-	-	100
		Students	998 (100)	-	-	100
6	EBSCOHOST	Staff	285 (100)	-	-	100
		Students	998 (100)	-	-	100
7	DOAJ	Staff	213(74.73)	54(18.94)	-	100
		Students	705(70.64)	235(23.54)	-	100

Table 4.9 revealed that Hinari, Jstor, Oare, Agora and Ebscohost databases all recorded over 90%responses for both the Academic Staff and the Postgraduate Students. This finding is not surprising because Kashim Ibrahim Library has over the years instituted Database training for faculty staff and postgraduate students. The training affords them the opportunity to learn how to navigate and download a full text journal article in different field of specialization. Directory of open access journal (DOAJ) recorded 213 (74.73%) for the Academic Staff and 705 (70.64%) for the Postgraduate Students. The least known database is Prota with 428(42.88%) Academic Staff and498 (46.58%) Postgraduate Students. This finding is equally true because Prota is a new database initiated in January 2000; still in it second implementation phase and just gaining popularity, because it aimed at providing a platform for information and discussion on the above 7,000 useful plant of tropical Africa.

4.2.10 Purpose of using the Internet by Staff and Students of Ahmadu Bello University, Zaria

The purpose of using the Internet by the respondents was sought. They were requested to indicate their positions. Their responses were computed and presented in the table 4.10 below.

Table 4.10 Purpose of using the Internet by Staff and Students of Ahmadu Bello University, Zaria

S/No	Purpose of Internet Use	Types of respondents			
		STAFF		STUDENTS	
		Response rate	Response Percentage	Response rate	Response Percentage
1	Research and Learning	285	21.90	998	22.90
2	Communication	285	21.90	998	22.90
3	Entertainment	122	9.30	374	8.50
4	Job Opportunity	163	12.50	499	11.40
5	Scholarship Opportunity	163	12.50	499	11.40
6	Social Networking	285	21.90	998	22.90
Total		1303	100.0	4366	100.0

N.B: Responses more than the respondents due to multiple choice questions

Table 4.10 presented the respondents' opinion on the purpose of using the Internet. The table revealed that 285 (21.90%) of the Academic Staff 998 (22.90%) of the Postgraduate Students use the Internet for the purpose of research and learning, communication and social networking. This finding tallied with that of Ebersole (2000) who reported that the respondents to the computer administered survey gave the following reasons for using the Internet: Research and learning (52.00%),communicate with other people (7.0%),access to material otherwise unavailable (5.0%),find something exciting/fun (8.0%),finding something to do when bored (5.0%),sports and game information (1.0%). Both data shows that majority of the Internet users in an academic setting use it for research and learning. The fact that electronic resources were used heavily for research and to update knowledge might support the findings of a study conducted by Tenopir (2003). It was revealed that the

heaviest use of electronic resources is for research, followed by teaching and gaining current awareness. The report also agreed with that of Bronthron et al (2003), Hadebe (2005), Patitungkho and Deshpande (2005) that among those who use electronic journals regularly, use them for current awareness, writing and presenting seminar/conference papers and keeping up to date knowledge. The implication of this is that high rate of anxiety will definitely affect scholarly work and productivity in our university. Since individuals who suffer from computer anxiety usually display negative behavior and physiological reactions to computer and by extension the Internet. Some instances of the negative behavior such as: avoidance of use of computers, minimizing the use of computers with extra care has been pointed out by scholars like Anderson (1996).

4.2.11 Problems of using the Internet by Staff and Students of Ahmadu Bello University, Zaria

Attempt was made to identify the respondents' problems of using the Internet. They were provided with some options to choose from. Their responses were computed and presented in table 4.11 below.

Table 4.11 Problems of using the Internet by Staff and Students of Ahmadu Bello University, Zaria

S/No	Types of Problems	Types of Respondents			
		STAFF		STUDENTS	
		Response rate	Response Percentage	Response rate	Response Percentage
1	Slow Access Speed	285	30.50	998	32.00
2	Difficulty in finding relevant information	122	13.00	374	12.00
3	Too much information	244	26.00	873	28.00
4	Too little information	203	21.70	624	20.00
5	Finding nothing at all	82	8.80	250	8.00
Total		936	100.0	3119	100.0

N.B: Responses more than the respondents due to multiple choice questions

From table 4.11, it can be deduced that a majority 285 (30.50%) of the Academic Staff and 998 (32.00%) of the Postgraduate Students of Ahmadu Bello University, Zaria suffer from slow access speed of the Internet. Based on the researcher's observation, connectivity was the issue as well as high speed Internet access which is lacking; connectivity influences how often, how long and how effectively the Internet is use, as broadband access increase so does time spent online and user satisfaction. About 244 (26.00%) of the Academic Staff and 873 (28.00%) of the Postgraduate Students indicated too much information to contend with and 203 (21.70%) of the Academic Staff and 624 (20.00%) of the Postgraduate Students faced the issue of too little information to access. In consonance with these findings, Gbaje (2006) observed

that users of electronic resources are overwhelmed by the number of hits resulting from search query with limited ability to refine or make precise search. He added that the result of development of web technology made it possible for anyone with access to the technology and the skills to publish on the web. This has led to an exponential increase in electronic documents with dynamic nature, this makes the web overwhelmed by the quantity and under whelmed by the quality of information, which makes finding relevant and current information frustrating and time consuming.

4.2.12 Causes of information anxiety among Staff and Students of Ahmadu Bello University, Zaria

The researcher provided the respondents with options on different causes of anxiety. They were requested to indicate which option(s) they agree with as the cause of their anxiety. The data collected in this regard was analyzed and presented in table 4.12 below.

Table 4.12 Causes of information anxiety among Staff and Students of Ahmadu Bello University, Zaria

Causes of anxiety	Respondents	Strongly Agreed	Undecided	Strongly disagreed	Total
Lack of computer skills	Staff	245 (85.96)	-	40 (14.04)	285
	Students	873 (87.47)	-	125 (12.53)	998
Pressure of work/study	Staff	171 (60.00)	57 (20.00)	57 (20.00)	285
	Students	665 (66.65)	166 (16.65)	166 (16.65)	997
Too many relevant hit	Staff	203 (71.22)	41 (14.39)	41 (14.39)	285
	Students	627 (62.81)	249 (24.94)	125 (12.52)	998
Too few relevant hit	Staff	114 (40.00)	114 (40.00)	57 (20.00)	285
	Students	332 (33.27)	332 (33.27)	334 (33.46)	998
Speed of the connectivity	Staff	285 (100)	-	-	285
	Students	998 (100)	-	-	998
Crowdedness	Staff	57 (20.00)	171 (60.00)	57 (20.00)	285
	Students	167 (16.70)	499 (49.90)	334 (33.40)	1000
Lack of assistance	Staff	228 (80.00)	-	57 (20.00)	285
	Students	664 (66.52)	-	334 (33.48)	998

The finding showed that ‘speed of the connectivity’ and ‘lack of computer skills’ cause anxiety among both the students and the staff. On the other hand, ‘lack of assistance’ affected the staff more than the students. Too many relevant hit cause anxieties among both of them. People, according to Jinni (2004), vary greatly in their interpretation of events that are anxiety producing. Behavioral differences among individuals are contingent on the presence of the anxiety-eliciting stimuli and the degree to which one’s personality embodies features labeled as anxiety. Therefore, to reduce anxiety, the use of techniques of filtering, personalization and effective searching skills is advocated.

4.2.13 Type of anxiety exhibited when using the Internet by Academic Staff and Post graduate Students in Ahmadu Bello University, Zaria

The main truce of this study is to investigate information anxiety among Academic Staff and Postgraduate Students in Ahmadu Bello University, Zaria. The researcher after identifying the various usage of Internet by staff and Postgraduate Students of the university tried to find out the type of anxiety exhibited by the respondents when using the Internet. The researcher provided them with different signs of anxiety to choose from. The data collected and analysed were presented in table 4.13 below.

Table 4.13 Type of Anxiety exhibited by Staff and Students in Ahmadu Bello University, Zaria

S/No	Types of Anxiety	Types of Respondents			
		STAFF		STUDENTS	
		Response rate	Response Percentage	Response rate	Response Percentage
1	Uneasiness	0	0.0	0	0.0
2	Being apprehensive	95	16.70	428	20.00
3	Fearfulness	0	0.0	0	0.0
4	Rapid heartbeat	0	0.0	0	0.0
5	Sweating	0	0.0	0	0.0
6	Headache	0	0.0	0	0.0
7	Tension	0	0.0	143	6.70
8	Fidgeting	0	0.0	0	0.0
9	Panicking	0	0.0	0	0.0
10	Uncertainty	143	25.00	428	20.00
11	Distressfulness	48	8.40	143	6.70
12	Overwhelmed	285	49.90	998	46.60
Total		571	100.0	2140	100.0

N.B: Responses more than the respondents due to multiple choice questions

Table 4.13 reveals that all the respondents indicated that they did not suffer from uneasiness, fearfulness, rapid heartbeat, sweating, headache, fidgeting and panicking, this is not surprising because they are all signs of generalized anxiety disorder and not

necessarily anxiety that has to do with using technologies ‘Anxious technophobe ‘. A majority of the Academic Staff 285 (49.90%) and the Postgraduate Students 998 (46.60%) indicated that they experienced much anxiety when they are overwhelmed by the amount of information on the Internet. About 143 (25.00%) of the Academic Staff and 428 (20.00%) of the Postgraduate Students have the feeling of uncertainty when they are on the Internet. Whereas, 95 (16.70%) of the Academic Staff and 428 (20.00%) of the Postgraduate Students are apprehensive of the Internet. This finding is in line with that of Delaney (2007), who opined that there are some findings tasks for which users are confident of their outcome based on previous experience with similar tasks. However, many finding tasks do involve uncertainty both in terms of where the desired information will be found and how to go about searching for it. Also, the feeling of information overload is usually associated with a loss of control over the situation and sometimes with feelings of being overwhelmed. In the extreme, it can lead to damage to health. Various psychological conditions have been described to be associated with such situation, such as continuous partial attention. Appropriate use of information technology by use of techniques of filtering and personalization, and the avoidance of over-much ‘push’ technology is also often presented as a solution.

4.2.14 frequency of Anxiety exhibited by Staff and Students in Ahmadu Bello University, Zaria

The researcher tried to discover the frequency of anxiety exhibited by the academic staff and post graduate students of Ahmadu Bello University, Zaria. The respondents

were presented with some options to choose from. Their responses were presented in the table 4.14 below.

Table 4.14 frequency of Anxiety exhibited by Staff and Students in Ahmadu Bello University, Zaria

Signs of anxiety	Respondents	Very frequent	Not frequent	Undecided	Total
Uneasiness	Staff	-	214 (75.09)	71 (24.91)	285
	Students	200 (20.00)	598 (60.00)	200 (20.00)	998
Being apprehensive	Staff	285 (100)	-	-	285
	Students	200 (20.00)	798 (80.00)	-	998
Fearfulness	Staff	-	210 (73.7)	75 (26.3)	285
	Students	200 (20.0)	598 (60.0)	200 (20.0)	998
Rapid heartbeat	Staff	-	200 (70.18)	85 (29.82)	285
	Students	-	798 (80.0)	200 (20.0)	998
Sweating	Staff	-	239 (83.85)	46 (16.15)	285
	Students	-	598 (60.0)	400 (40.0)	998
Headache	Staff	-	220 (77.2)	65 (22.8)	285
	Students	-	749 (75.05)	249 (24.95)	998
Tension	Staff	-	211 (70.03)	74 (25.97)	285
	Students	-	798 (80.0)	200 (20.0)	998
Fidgeting	Staff	-	71 (24.91)	214 (75.09)	285
	Students	200 (20.0)	598 (60.0)	200 (20.0)	998
Panicking	Staff	-	145 (50.87)	140 (49.13)	285
	Students	200 (20.0)	598 (60.0)	200 (20.0)	998
Uncertainty	Staff	142 (49.82)	143 (50.18)	-	285
	Students	399 (60.03)	399 (39.97)	-	998
Distressfulness	Staff	71 (19.88)	143 (40.06)	143 (40.06)	357
	Students	400 (33.4)	399 (33.30)	399 (33.30)	1198
Overwhelmed	Staff	285 (100)	-	-	285
	Students	998 (100)	-	-	998

Table 4.14 further confirmed that the frequency by which both the Academic staff and the Postgraduate students of Ahmadu Bello University, Zaria experienced apprehension, uncertainty, distressfulness and overwhelmed is greater than any other kind of anxiety. As can be seen from the table above 285 (100%) of the staff and 998

(100%) of the students indicated that they frequently experience overwhelmed more than any kind of anxiety, this was closely followed by apprehension with staff recording 100%.

4.2.15 coping strategies of Staff and Students in Ahmadu Bello University, Zaria

In order to determine how the Academic Staff and Postgraduate Students cope with Information anxiety, they were requested to select from the options provided on different ways of coping with anxiety. Their responses were computed and presented in table 4.15 below.

Table 4.15 Coping strategies of Staff and Students in Ahmadu Bello University, Zaria

		STAFF		**STUDENTS**	
S/No	**Coping strategy**	**Response rate**	**Response Percentage**	**Response rate**	**Response Percentage**
1	Use of Metadata	29	5.10	95	4.80
2	Filtering strategy	86	15.0	332	16.6
3	Avoidance of push technology	29	5.10	95	4.80
4	Withdrawal strategy	100	17.49	332	16.6
5	customization	29	5.10	95	4.80
6	Training programme	270	47.2	950	47.6
7	Web 2.0	29	5.10	95	4.80
	Total	572	100.0	1994	100.0

N.B: Responses more than the respondents due to multiple choice question.

The table above revealed that both the Academic Staff 270 (47.2%) and Postgraduate Students 950 (47.6%) were in agreement with training programme as a way of coping with anxiety. However, they were not in agreement in such areas as: Use of Metadata where 29 (5.10%) Academic Staff rated it high as against 95 (4.80%) Students. On the other hand 29 (5.10%) Students as against 95 (4.80%) Staff prefers using Web 2.0. Thus, it could be said that Internet training programme should be encourage by the university to reduce information anxiety in Ahmadu Bello University, Zaria

4.2 Statistical Analysis

The data analysis in this section is based on the data collected in respect of the five null hypotheses raised in the study. They were tested using t-test Independent. The researcher used 0.05 as the level of significance for testing the hypotheses. This is because the research involves human beings and the 0.05 level of significance is generally accepted due to human error that is involve. The findings are presented as follows.

HYPOTHESIS 1: There is no significant difference between the Academic Staff and the Post graduate students of Ahmadu Bello University, Zaria in the type of Internet resources used.

The first hypothesis raised in this study seeks to find out whether there is any difference in the Internet resources used by Academic Staff and Postgraduate Students. To test this hypothesis the data used here was transformed using logarithm to remove the discrepancies due to great variation between the two groups.

Table 4.16 Type of Internet resource Use

Group	N	X	S	Df	t cal	t crit
Staff	285	1.7475	0.1222	1281	5.62	1.96
Students	998	2.2930	0.1223			

From the analysis of data as presented in the above table, the null hypothesis that there is no significant difference in the type of Internet resources used between Academic staff and the Postgraduate Students in Ahmadu Bello University, Zaria was rejected, because the calculated t value 5.62 is greater than the tabulated t value 1.96.This implies that there is significant difference in the type of Internet resources used by the respondents in Ahmadu Bello University, Zaria. The analysis showed that the Academic Staff and the Postgraduate Students in Ahmadu Bello University, Zaria use different Internet resources. This is further revealed by the grand mean of 1.74 and 2.29 respectively. From this finding it was noted that the Academic Staff use e-journals and e-mails while the Postgraduate Students use e-mails more than e-journals. The differences could be attributed to the Academic Staff's nature of work. Nazim (2008) confirmed that e-mail, www, and search engines as important Internet services used by majority of students of Aligarh Muslim University. The OCLC (2008) investigation indicated that students use commercial search engines and web portals as their first choice web resource. The students however made their decisions about which resource to use from those recommended by their professors.

HYPOTHESIS 2: There is no significant difference between the Academic staff and the Postgraduate Students of Ahmadu Bello University, Zaria in their purposes of using the Internet.

The second hypothesis in this study looked at the purpose of using Internet by both Academic Staff and the Postgraduate Students. T-test was employed to test this hypothesis. Table 4.17 below shows the summary of the result.

Table 4.17 Summary table of t-test on purpose of using the Internet.

Group	**N**	**X**	**S**	**df**	**t cal**	**t crit**
Staff	285	2.0716	0.0870	1281	3.99	2.074
Students	998	2.5860	0.1126			

From the analysis of data as presented in the above table, the null hypothesis that there is no significant difference between the Academic staff and the Postgraduate Students of Ahmadu Bello University, Zaria in their purpose of using the Internet was rejected because the calculated t value 3.99 is greater than the tabulated t value 2.074.This shows that there is significant difference between the two groups in their purposes of Internet use. This implies that the Academic Staff and the Postgraduate Students in Ahmadu Bello University, Zaria use the Internet for different reasons. This again is clearly shown from the mean score of 2.07 for staff and 2.58 for Postgraduate Students. However both the Academic Staff and Postgraduate Students agreed that research and learning, communication and social networking form their purposes of using the Internet. The percentage of the Postgraduate Students involved

in these tasks out - weights the Academic Staff considering their mean scores. Therefore, it can be assumed that Postgraduate Students make better use of the Internet in their daily activities than their Academic Staff counterparts.

HYPOTHESIS 3: There is no significant difference between the Academic Staff and the Postgraduate Students of Ahmadu Bello University, Zaria in the causes of their Information Anxiety when using the Internet.

The third hypothesis raised in this study tries to find out whether there is any difference in the causes of Information Anxiety between the Academic Staff and the Postgraduate Students. The hypothesis was tested by transforming the data collected using logarithm to remove the discrepancies due to the variations between the two groups.

Table 4.18 Summary table of t-test on Causes of Information Anxiety.

Group	**N**	**X**	**S**	**df**	**t cal**	**t crit**
Staff	285	1.9274	0.0473	1281	6.75	1.96
Students	998	2.3922	0.0498			

From the analysis of the table above, the null hypothesis that there is no significant difference between the Academic Staff and the Postgraduate Students of Ahmadu Bello University, Zaria in their causes of Information Anxiety when using the Internet was rejected because the calculated t value 6.75 is greater than the tabulated t value 1.96.This implies that there is significant difference between the two groups of respondents in their causes of Information Anxiety. The analysis revealed difference

in the Mean scores where Academic Staff recorded 1.92 and the Postgraduate Students recorded 2.39.

The finding showed that 'slow access speed' and 'too much information' i.e. information overload cause anxiety among the students than the staff. On the other hand, 'too little information' affected the staff more than the students. Lack of computer skills cause anxiety among both of them. People, according to Jinni (2004), vary greatly in their interpretation of events that are anxiety producing. Behavioral differences among individuals are contingent on the presence of the anxiety-eliciting stimuli and the degree to which one's personality embodies features labeled as anxiety. Therefore, to reduce anxiety, the use of techniques of filtering, personalization and effective searching skills is advocated.

HYPOTHESIS 4: There is no significant difference between the Academic Staff and the Postgraduate Students of Ahmadu Bello University, Zaria in the types of the Anxiety they exhibited.

The fourth hypothesis examined the type of anxiety exhibited by both the Academic Staff and the Postgraduate Students. The t-test was used to test the hypothesis. The summary of the findings is provided in table 4.18 below.

Table 4.19 Summary table of t-test on type of Anxiety exhibited.

Group	**N**	**X**	**S**	**df**	**t cal**	**t crit**
Staff	285	2.0672	2.0644	1281	0.58	2.365
Students	998	2.5145	0.3222			

From the above table, the null hypothesis that there is no significant difference between the Academic Staff and the Postgraduate Students of Ahmadu Bello University, Zaria in the type of Anxiety exhibited was retained because the calculated t value 0.58 is less than the tabulated t value 2.365.This implies that there is no significant difference in the type of Anxiety exhibited by the Academic Staff and the Postgraduate Students in the University when using the Internet. The analysis revealed that the Academic Staff and Postgraduate Students in Ahmadu Bello University, Zaria exhibit same type of Anxiety. In consonance to this finding, Ganzel (1998) in his study found that several Internet users feel anxious when they deal with computer system, especially at the initial stage of interaction. However, the users' initial anxious feelings will be overcome, replaced with favorable perceptions as they familiarize themselves with the system interface and functionality.

HYPOTHESIS 5: There is no significant difference between the Academic Staff and Postgraduate Students of Ahmadu Bello University, Zaria in the frequency of Anxiety they exhibit when using the Internet.

The last hypothesis examined the frequency of anxiety exhibited by both the Academic Staff and the Postgraduate Students. The t-test was used to test the hypothesis. The summary of the findings is provided in table 4.20 below.

Table 4.20 Summary table of t-test on frequency of Anxiety exhibited.

Group	**N**	**X**	**S**	**df**	**t cal**	**t crit**
Staff	285	2.056084	0.076376549	1281	6.88	1.96
Students	998	2.540608	0.047642331			

From the above table, the null hypothesis that there is no significant difference between the Academic staff and the Postgraduate Students of Ahmadu Bello University, Zaria in the frequency of Anxiety exhibited was rejected because the calculated t value 6.88 is greater than the tabulated t value 1.96.This implies that there is significant difference in the frequency of Anxiety exhibited by the Academic Staff and Postgraduate Students in the University when using the Internet. The analysis revealed that the Academic Staff and Postgraduate Students in Ahmadu Bello University, Zaria frequency of exhibition of Anxiety is different.

The Mean score of 2.05 for staff and 2.54 for students confirmed that difference exist in the frequency of exhibition of anxiety between Academic Staff and Postgraduate Students when using the Internet. Consequently, the student's ability for information access and productivity will be affected.

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CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter provides the summaries of the study and findings. Conclusions were drawn as well as ways to overcome anxiety by the Academic Staff and Postgraduate students in Ahmadu Bello University Zaria were put forward.

5.1 SUMMARY OF THE STUDY

The study set out to investigate the phenomenon of Information Anxiety among the Academic Staff and the Postgraduate Students of Ahmadu Bello University Zaria. A survey method was used for the study. In order to achieve the objectives of the study, five research questions and five hypotheses were formulated. The population of the study was made up of the twelve faculties in Ahmadu Bello University Zaria. The subjects of the study were the Academic staff and the Post graduate students of the University. Stratified sampling method was used to select respondents to accommodate the different strata of the subjects involved in the study. The instruments used to generate the data needed to answer the research questions/hypotheses were the questionnaire and online survey monkey. The first part of the analysis was done descriptively using tables, frequency distributions and percentages, while the second part an inferential statistics was used using t-test independent. The method used for collating the data was questionnaire. They were distributed to both the staff and the student of the twelve faculties by the researcher. Both hard copies and soft copies of the questionnaires were produced. The

Postgraduate lecture halls were used as venue for the Postgraduate students; where the distribution of copies of questionnaires to staff was done office to office.

5.2 SUMMARY OF THE FINDINGS

5.2.1 Findings on Descriptive analysis

The major findings under descriptive analysis were that:

1. The Academic staff and Postgraduate students patronized the Department connection more than any other form of connectivity and they mostly use the faculty connection followed by the University wireless hotspot.
2. In terms of availability of Internet facilities, both the Academic Staff and the Postgraduate students attested to the availability of Web browsers which included Mozilla Firefox, Internet Explorer, Mosaic, Opera, and Netscape etc for their use.
3. The Academic staff learnt how to use the Internet through University organized training by the University computer centre or other organs of the University, while Postgraduate students learnt Internet use through family, friends and colleagues.
4. The greatest hindrance to using the Internet by the Academic Staff and Postgraduate Students' were lack of time and the sluggish nature of the connectivity.
5. The e-mail and e-journal were the most used Internet resources by both the Academic staff and the Postgraduate students and larger proportion of both of them use Google search engine followed by Yahoo.

6. Most of the Academic staff and Postgraduate students are aware of Hinari, Jstor, Oare, Agora and Ebscohost databases and used the Internet for research and learning, communication and social networking.
7. The Academic Staff and the Postgraduate Students agreed that they have encountered one problem or the other when using the Internet and also suffered from slow access speed of the Internet.
8. A majority of the Academic Staff and the Postgraduate Students are overwhelmed by the amount of information on the Internet thereby cause them some anxiety when using it.
9. Speed of the connection, lack of computer skills, lack of assistance are major cause of anxiety among both the students and the staff of Ahmadu Bello University, Zaria.

5.2.2 Findings on Statistical analysis

The result of the hypotheses tested showed that:

1. There is significant difference between the Academic Staff and the Postgraduate Students in Ahmadu Bello University, Zaria in the type of Internet resources used.
2. There is significant difference between the Academic Staff and the Postgraduate Students in Ahmadu Bello University, Zaria in the purpose of using the Internet.
3. There is significant difference between the Academic Staff and Postgraduate Students in Ahmadu Bello University, Zaria in the causes of their Information Anxiety.

4. There is no significant difference between the Academic Staff and the Postgraduate Students in Ahmadu Bello University, Zaria in the types of anxiety they exhibit.
5. There is significant difference between the Academic Staff and Postgraduate Students in Ahmadu Bello University, Zaria in the frequency of anxiety they exhibited.

The study discovered that the Internet resources used, the purpose of using the Internet, causes of anxiety and frequency of anxiety exhibited differ between the two groups, but one thing they all share was the type of anxiety they exhibit. They all exhibited apprehension, tension, uncertainty, overwhelmed and distress. This has made browsing the Internet time wasting, problematic and very difficult. Therefore, they under utilize available information resources and services that Internet offers.

5.3 CONCLUSION

In spite of the fact that both the Academic Staff and Postgraduate Students in Ahmadu Bello University Zaria exhibit all kinds of anxiety over the use of Internet, it could be concluded that both the Academic Staff and Postgraduate Students in Ahmadu Bello University have realized the fact that Internet use is prerequisite for the successful conduct of their research, learning and other scholarly functions. However, because both the Academic Staff and Postgraduate Students in Ahmadu Bello University,Zaria do not regularly up-date their Internet usage skills, this has to a large extend resulted in the ever growing anxiety among them. So therefore, Librarians are challenged to reevaluate user preferences concerning information resources consulted, purpose of

Internet search and provision of Internet training in order to save their time, thereby remedying the anxiety.

5.4 RECOMMENDATIONS

Based on the major findings and conclusion of this study, the following recommendations were made. That:

1. Internet connectivity should be provided as a matter of urgency, in all the departments and faculties in the university where there is none. This will increase access due to its proximity to the users. The Staff and Students common rooms should equally be provided with Internet connection.
2. Greater publicity should be provided on the type of databases available on the library's homepage and other metadata search options. Both the Academic Staff and Postgraduate Students should make it a habit to visit the library's homepage before any other site.
3. In view of the need for effective use and reduction of anxiety the University should continue to organize more training on Internet for all and sundry through the University Computer Center and other organs of the University.
4. In order to maximize the Internet usage and also increase its access speed, the University should make all efforts to either increase the University bandwidth or alternatively get a broadband connection.
5. Teleconferencing facilities should be provided and publicise its use during functions in the University. By so doing Scholars can network, communicate and collaborate with their professional colleagues both within and outside the country.

6. In order to reduce anxiety, the use of techniques of filtering and personalization and avoidance of over-much ‘push’ technology is also recommended. The Web 2.0 which is a tool for information management essentially for finding what users need and can judge the quality of their result should assist in this.

5.5 SUGGESTION FOR FURTHER STUDIES

This research focused on Information Anxiety among the Academic Staff and Post graduate students in Ahmadu Bello University, Zaria. In the course of the research, the following areas were brought to light which are not within the scope of this present study. Therefore, further studies need to be conducted in the following areas;

1) Information anxiety amongst undergraduate students in Ahmadu Bello University, Zaria.
2) Comparative analysis of e-resources and print resources use by the Academics in Ahmadu Bello University, Zaria.

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APPENDIX 1
QUESTIONNAIRE FOR STAFF AND POST GRADUATE STUDENTS

Department of Library and Information Science
Faculty of Education
Ahmadu Bello University, Zaria

1st March, 2010

Dear Respondent,

I am a postgraduate student of the above named institution carrying out a research on Information anxiety among Internet users of Ahmadu Bello University Zaria. It would be greatly appreciated if you take time to complete the items in the questionnaires. It is meant for academic research purposes and the information supplied shall be treated confidentially.

Thank you very much for your time and cooperation.

Yours Sincerely
Aliyu Abdulkadir

APPENDIX 2

SECTION A: PERSONAL DATA

Please kindly tick ( )/fill the space provided

(1) Status

Postgraduate student ( )

Academic staff ( )

(2) Faculty ----------

SECTION B: INTERNET ACCESS/FACILITIES AVAILABLE

(3) Which Internet Café do you patronize?(Tick as many as possible)s

(a) Campus Internet Café ( )

(b) Off campus Internet Café ( )

(c) Personal subscription ( )

(d) University Hotspot ( )

(4) If you patronize Campus Internet Café, which do you use mostly?

(a) Cyber café ( )

(b) University Hotspot ( )

(c) Personal subscription ( )

(d) Departmental ( )

(e) Faculty ( )

(f) Institute ( )

(g) Centre ( )

(5) How adequate are the Internet facilities you use?

	Very adequate	Mostly adequate	Adequate	Not adequate	Undecided
Cyber cafe					
University hotspot					
Personal Subscription					
Departmental					
Faculty					
Institute					

(6) How do you come about using the Internet?

(a) Self study/Instruction ( )

(b) Family, friends, colleagues ( )

(c) Guidance from library staff ( )

(d) Formal courses ( )

(7) What is your greatest hindrance/barrier in using the Internet?

(a) Lack of Time ( )

(b) Lack of Money ( )

(c) Lack of Training/Skills ( )

(d) Too much Information ( )

(e) Too little Information ( )

(f) Limited access to computer ( )

(g) Others (specify) ----------

SECTION C: TYPE OF INTERNET RESOURCES/SERVICES

(8) What type of Internet resources do you always use?

(a) e-mail ( )

(b) e-books ( )

(c) e-journals ( )

(d) Discussion group ( )

(e) Usenet/Newsgroup ( )

(f) Telnet ( )

(g) WWW ( )

(h) Others (specify)----------

(9) Which search engine do you use?

(a) Yahoo

(b) Google

(c) MSN

(d) Alta vista

(e) Melzoo

(f) Others (specify)----------

(10) Indicate the type of Internet Resources you prefer?

	Highly prefer	Mostly prefer	prefer	Not prefer	Undecided
e-mail					
e-books					
e-journals					
Discussion group					
Usenet/Newsgroup					
WWW					
Telnet					

Others (specify) ----------

(11) Are you aware of the following Databases?

	Highly aware	Mostly aware	Aware	Not aware	Undecided
HINARI					
JSTOR					
PROTA					
OARE					
AGORA					
EBSCOHOST					
DOAJ					

Others (specify) ----------

SECTION D: REASONS FOR THE USE OF INTERNET

(12) Indicate your purpose of using the Internet?

(a) Research and Learning ( )

(b) Communication ( )

(c) Entertainment ( )

(d) Job opportunity ( )

(e) Scholarship opportunity ( )

(f) Social Networking ( )

(g) Others (specify)----------

(13) Which purpose of using the Internet is useful to your work and study?

	Very useful	Useful	Partially useful	Not useful	Undecided
Research and Learning					
Communication					
Entertainment					
Job opportunity					
Scholarship opportunity					
Social Networking					

SECTION E: TYPES OF ANXIETY

(14) Have you encounter any of these problem(s) when using the Internet?

(a) Slow access speed ( )

(b) Difficulty in finding relevant information ( )

(c) Too much information ( )

(d) Too little information ( )

(e) Finding nothing at all ( )

(15) What type of anxiety do you exhibit when using the Internet?

(a) Uneasiness ( )

(b) Being apprehensive ( )

(c) Fearfulness ( )

(d) Rapid heartbeat ( )

(e) Sweating ( )

(f) Headache ( )

(g) Tension ( )

(h) Fidgeting ( )

(i) Panicking ( )

(j) Uncertainty ( )

(k) Distressfulness ( )

(l) Overwhelmed ( )

(16) Indicate the frequency of occurrence of the following types of anxiety when using the Internet?

	Very frequent	Most frequent	Frequent	Not frequent	Undecided
Uneasiness					
Being apprehensive					
Fearfulness					
Rapid heartbeat					
Sweating					
Headache					
Tension					
Fidgeting					
Panicking					
Uncertainty					
Distressfulness					
Overwhelmed					

SECTION F: CAUSES OF INFORMATION ANXIETY

(17) In your opinion what causes information anxiety when using the Internet?

	Strongly Agreed	Agreed	Undecided	Disagreed	Strongly disagreed
Lack of computer skills					
Pressure of work/study					
Too many relevant hit					
Too few relevant hit					
Speed of the connectivity					
Overcrowd ness					
Lack of assistance					

Others (specify) ----------

(18) What Coping strategy do you adopt to contain Information anxiety?

1 Use of Metadata ( )
2 Filtering strategy ( )
3 Avoidance of push technology ( )
4 Withdrawal strategy ( )
5 customization ( )
6 Training programme ( )
7 Web 2.0 ( )
Others (specify) ----------