Full Length Research Paper

ICT skills and Internet usage among Library and Information Science students in Delta and Edo States, Nigeria

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The study examined ICT skills and internet usage of undergraduates of Library and Information Science Departments in Delta and Edo States. The descriptive design was employed for the study. Sample consists of 238 undergraduates. The questionnaire was used to collect data from respondents. Findings revealed that there was no significant relationship between the ICT skills possessed by undergraduates of LIS Departments in Delta and Edo states and their internet usage. However, the undergraduates possessed ICT skills and adequately make use of the Internet. Findings also revealed that the most popular way of acquiring ICT skills by the undergraduates was self-taught with manuals and handbook, through courses of study at the university and friends.

Key words: ICT skills, internet usage, library and information science students.

INTRODUCTION

There is a growing acceptance among academics, education policy-makers and employer groups that the development of ICT skills is part of the role of higher education. Employers are seeking graduates with a range of knowledge on ICT skills and personal attributes in addition to degree status (B-HERT, 2002). According to Akintunde (2004), information and communication technology (ICT) as a terminology has overtaken information technology (IT) because of its appropriateness and utilization. Beebe (2004) posited that ICT is a short term for computers, software, networks, satellite links and related systems that allow people to access, analyze, create, exchange and use data, information and knowledge. The use of ICT has increased and broadened

the impact and skills of students on how to seek information electronically. The ICT skills that have become increasingly important in the pursuance of a degree-level education will affect both how students manipulate these e-learning resources and the way they are used for learning. ICT skills deal with the application of ICT to specific purposes. It is not just about using software package or using operating systems, neither is it concerned only with keyboarding skills and students' ability to copy-type or follow instructions. Rather, ICT skills among undergraduates is about students' ability to use their knowledge about ICT to find, develop and present information; whether it is text, image, or number, or all of these in an integrated task. Tariq and Cochrane (2003)

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noted that in recent years employers require graduate employee to be skilled in a range of areas including information and communication technology (ICT) and employers look to higher education Institutions to equip their graduates with the requisite skills. Engeldinger (1998) noted that the fundamental purpose of higher education is the preparation of students for their future. If graduates of today and tomorrow are to flourish in the modern, fast paced, high tech world, they must have information seeking and technology skills. The means of acquiring these ICT skills must be imbedded in students learning and be part and parcel of their educational experience. Adeogun (2003) reported that ICTs skills among undergraduates have broken the barriers of time, distance, location and cost of study. The ability of undergraduates to manipulate ICTs through the skills they have acquired means a lot to institutional management.

In order to utilize the growing range of ICTs, students must acquire and practice the skills necessary to exploit them. As Dutton (1990) suggested that the skills required to maximize the potential of ICTs are much more than those required for searching printed sources. These skills include a knowledge of computer operations, knowledge of the structure of databases and the instructions which must be input into the computer by the student, as well as an understanding of the ways in which the instructions are linked with one another. To this end, Brophy (1993) stated that students do not often appreciate the skills required to search these sources, stating that they are deceptively easy to use. The ability of students to find and retrieve information effectively is a transferable skill useful for future life as well as enabling the positive and successful use of the electronic resources while still at the university. As Brophy (1993) argued that institutions must reach a position where the acquisition of ICT skills is acknowledged as one of the key learning objectives for every students entering into a university so that no student leaves without being fully equipped to cope with the information intensive world-the information society-as an end-user.

Akintunde (2004) stated that the ability to use computer is not the only ICT skill needed to exploit the information located on the internet. In order to make the most of this online content, one must be information or ICT literate. Nikitakis (2007) stated that ICT skill refers to the ability of fully understanding and acquiring a wholeness of capacities, such as recognizing, spotting, evaluating and making effective use of the given information. In order words, one should possess not only the basic computer usage skills, but also communication, inquiry and information retrieval capabilities. Ryan (1994) stated that, over a decade ago, the International Technology Education Association has recognized the students' preparation on internet application as an important objective of computer literacy education in the educational curriculum. Thus, students possessing ICT skills is very

important not only in the academic environment, but also for lifelong learning settings.

Internet resources are an integral part of the research process for students due to their numerous benefits which include availability of information resources at all times from any location. Students believe that electronic resources improve the quality of their papers by allowing them to spend less time in the research phase and more time in the writing phase. Electronic resources also result in students obtaining more resources, a diversity of resources, and more up to-date resources. Electronic resources are more convenient and less intimidating than other resources. Since the development of ICT particularly the internet, students require the necessary skills to be successful in using these ICTs. Therefore, this study intends to identify the ICT skills possessed by undergraduates of Library and Information Science and the influence of the skills on their use of internet.

Objectives of the study

The main objectives of this study were to find out how students' information and communication technology skills influence their use of the internet. The specific objectives of the study were to:

1. find out the ICT skills that undergraduates in the Department of LIS possess in Delta and Edo States,
2. determine how the undergraduates make use of the internet,
3. find out how the undergraduates acquire their ICT skills.

LITERATURE REVIEW

Undergraduates' information and communication technology skills

ICT skills are those skills related to the use of computers, other technologies such as the ability to transmit stored information through fixed line networks or through wireless phone networks (Attwell, 2005). The ability to use computers effectively has become an essential part of every student's education; these skills constitute a set of computerized practices that form the core ICT skills packages: spreadsheet, word processors, database and presentation (Haywood, 2003). In a rapidly changing world, information and communication technology skills are essential for students to be able to access and apply information. ICT skills are needed in this global village for students to function optimally. Consequently, there is continuing concern among universities, government and employers about undergraduates' ICT skills, because graduates are the leaders of change and innovation in many walks of life.

ICT skills deal with the ability to apply ICT to specific purposes. It is not just about using software packages or using operating systems, neither is it concerned only with keyboarding skills and students' ability to copy type or follow instructions. Rather, key skills of ICT are about how students use their knowledge to find, develop and present information, whether it is text, image or numbers, or all of these in an integrated task. Tariq and Cochrane (2003) noted that in recent years, employers require graduate employees to be skilled in a range of areas including information and communication technology (ICT) and employers look to the higher education institutions to equip their graduates with these requisite skills. Haywood (2003) noted that for students to be successful in their academic pursuit, they must acquire various ICT skills that include but not limited to the following:

1. Must understand and be able to use a Computer to perform various tasks such as opening applications, creating and modifying documents, spreadsheets or presentations. Some basic typing skills will be necessary.
2. Have the ability to identify various ICT technologies and their uses.
3. Understand ICT technologies and concepts and be able to decide which ICT technology will be suitable for a particular task.
4. Be able to differentiate between various forms of information and understand how to use or manipulate them.

Tyler (2005) stated that in the world of higher education, virtually every aspect of scholarship has been influenced by technology. Students are conducting research through the web, drawing from academic journals, newspaper articles and speech transcripts. Some are receiving assignment online and e-mailing completed projects to their supervisors. Many are using spreadsheets, graph plotters, presentation programs and multimedia tools on a regular basis. Engeldinger (1998) stated that the fundamental purpose of higher education is the preparation of students for their future. If graduates of today and tomorrow are to flourish in the modern, fast-placed, high tech world, they must have information seeking and technology skills.

The proliferation of distance education and e-learning has altered the traditional definition of classroom, consequently, a measure of success today is how well one can evaluate, manage and communicate all forms of information with a technological environment, through the skills acquired. Attwell (2005) stated that in order to provide both flexible and security in an era characterized by constant change, 21st century students need 'knowing how to learn' skills that enable them to acquire new knowledge and skills, connect new information to existing knowledge, analyze, develop habits of learning, and work with others to use information. And as technology increasingly becomes the medium for communicating and information sharing, students need to be capable of harnessing technology to perform learning skills, such as communicating effectively with presentation software or jugging personal responsibilities with a personal digital assistant.

Iwona (2008) noted that in order to utilize the growing range of electronic resources, students must possess and practice the skills necessary to exploit them. These skills include basic knowledge of computer, proficiency in using productivity software, electronic communication skills as well as internet skills (Mentkowski and Associates, 2000). In great Britain, National statistics (2004) published in June 2004 show that over 60% of students have ICT skills necessary to have used the internet at some time, most commonly for research purposes. There is a growing interest by universities to ensure that students possess the appropriate ICT skills required by providing e-learning resources for students to access and use outside of the conventional lecture theatre setting(Taylor et al., 2004). The current interest in the potential of e-learning is a common concern for universities all over the world. The ICT skills that have become increasingly important in the pursuance of a degree-level education will affect both how students manipulate these e-learning resources and how they are used for learning. Ioanna (2008) stated that there has been a great attempt by all universities to integrate ICT more and more in their study programmes in order to help undergraduate students to develop their ICT skills. Educators recognize the need to increase the proficiency skill level of all students pertaining to information technology. The goals of most introductory computer applications courses are to familiarize incoming college freshmen with computer operating systems, fundamental and intermediate word processing commands, spread-sheet applications, presentation graphics, and database management. These skills are necessary to successfully matriculate throughout the learning process as well as to complete and secure future employment (Keengwe, 2002). Therefore, the increased use of computers and the level of internet use by students is an important measure of technological development. This development has been heavily influenced by the introduction of ICTs and formal ICT training in the university. Online learning, using ICT and e-learning have become the norm across tertiary educational institutions where students have been identified as stakeholders in the development and implementation of e-online learning (Ling et al., 2001; Petrova and Sinclair, 2005; Lee and Nguyen, 2005). To support ICT skills and online learning, administrative and faculty offices at universities must utilize substantial proportions of their budgets to provide this technology for their students in the learning process.

Undergraduates' use of internet

The internet is a global system of interconnected

computer network that use the standard internet protocol suite to serve billions of users worldwide. It is a network of networks that consist of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic, wireless and optical networking technologies. The internet is one of the greatest recent advancements in the world of information technology and has become a useful instrument that has fostered the process of making the world a global village. Mathew and Schrum (2003) stated that the internet provides several opportunities for the academia; it is a mechanism for information dissemination and a medium for collaborative interaction between individuals and their computers without regard for geographic limitation of space. The internet carries on extensive range of information resources and services, such as the inter-linked hypertext documents of the World Wide Web (www) and the infrastructure to support email which is mostly used by students (Robinson, 2005). Most traditional communications media including telephone, music, film, and television are reshaped or redefined by the internet, giving birth to new services such as voice over internet protocol (VoIP) and internet protocol Television (IPTV). Newspaper, book and other print publishing are adapting to web site technology, or are reshaped into blogging and web feeds. The internet has enabled or accelerated new forms of human interactions through instant messaging, internet forums and social networking.

Students use the internet for couple of things such as look up information on events, get directions or telephone numbers, get information on products, and to shop. This is evident in Bill Clinton, formal President of the US speech at San Francisco on September 21, 1995:

"I challenge business and local government throughout our country to make a commitment of time and resources so that by the year 2000 every classroom in America will be connected (to the Internet). . . I want to get the children of America hooked on education through computers."

Mathew and Schrum (2003) stated that some of the many useful tools available to the Internet user, and how they might be helpful to an educator or student include:

E-mail: Perhaps, the first step that many people have tried when using the Internet is e-mail. In theory, e-mail is an instantaneous electronic message from a sender to a recipient, (or multiple recipients). Compared to postal mail, (often called 'snail-mail' by Internet users), e-mail is probably the most used application in the Internet. With e-mail, the educator can let students set up Internet 'pen pals' with other children in nearby classrooms, in other states, in other countries, or even in other continents. This promotes computer usage, and allows students to improve their language arts skills, such as their reading, writing, thinking and listening abilities.

Through e-mail, students can send messages to literally thousands of businesses, or to private individuals. Children can ask experts in a certain field, say in politics or science, a list of questions to be answered. Teachers can use the e-mail in the same way, by talking to colleagues thousands of miles away, comparing lesson plans, etc.

To use e-mail, the sender simply opens the e-mail program and types in an address, a subject, and the message in the body of the letter. Once the letter is ready to be sent, the user simply clicks a 'send' command, and the letter is instantly transmitted to its destination.

A web browser*:* A web browser is a software application for retrieving, presenting, and traversing information resources on the World Wide Web. The World Wide Web makes up a very large percent of the Internet. Nearly seventy percent of all information searches are handled through the World Wide Web, and this is where most educators and students find their information on nearly any subject. Information is quickly found in the World Wide Web through typing in key words or files names (if known). An *information resource* is identified by a Uniform Resource Identifier (URI) and may be a web page, image, video, or other piece of content. A web browser can also be defined as an application software or program designed to enable users to access, retrieve and view documents and other resources on the Internet. Although browsers are primarily intended to access the World Wide Web, they can also be used to access information provided by web servers in private networks or files in file systems. The major web browsers are Firefox, Google Chrome, Internet Explorer, Opera, and Safari.

The primary purpose of a web browser is to bring information resources to the user. This process begins when the user inputs a Uniform Resource Locator (URL), for example *http://en.wikipedia.org/*, into the browser. The prefix of the URL, the Uniform Resource Identifier or URI, determines how the URL will be interpreted. It is a software application for retrieving, presenting, and traversing information resources on the World Wide Web.

Online chat*:* Online chat may refer to any kind of communication over the Internet that offers a real-time direct transmission of text-based messages from sender to receiver, hence the delay for visual access to the sent message shall not hamper the flow of communications in any of the directions. Online chat may address point-to-point communications as well as multicast communications from one sender to many receivers and voice and video chat or may be a feature of a Web conferencing service.

Online chat includes web-based applications that allow communication - often directly addressed, but anonymous - between users in a multi-user environment

FTP: File Transfer Protocol, or FTP, is an extremely

useful tool for any educator or student. With the FTP program on the Internet, files or even computer software can be obtained and downloaded into the user's computer. For instance, if a student in England wanted to get the book *Alice in Wonderland* from the library at the University of Maryland, he would simply open up the FTP option, find the University of Maryland, chose the children's section of the library, then find the book. The book's text would appear through the Internet, then it could be downloaded into the student's own files! Most software applications such as Word, Write, etc. that are currently running on school computers are downloaded this same way into each server to save money buying programs. A problem occasionally does occur when FTP is used to download a file. Sometimes, the file or software contains a computer virus. It is therefore necessary to scan all files accessed through FTP before they are used.

Telnet: Telnet is another extremely useful Internet tool for educators and students. Through Telnet, remote access is possible from other computer sites. Through Telnet, it is possible for the teacher to access and log-in to their school computer from any other computer that is connected to the Internet, *anywhere in the world!* Files can be downloaded, e-mail messages can be checked, and any other feature can be accomplished that he would normally do on his office computer. A student can use the same technique to alter a computer assignment he has been working on. A user simply opens the Telnet application, then type his server's name, account and password, and Telnet opens the account, just the way it was with the original work or school computer.

Abdelraheen and Al Musawi (2003) noted that internet is a familiar term for students but many of them do not know the depth of internet areas such as how it is useful, when to use and so on. Internet sites put forward entertainment, knowledge, advice, great shopping and a whole social world. Students may work out several usages while making use of internet. The Obafemi Awolowo University (OAU) became a leader among the universities in establishing internet and computing infrastructure through assistance from foreign agencies. OAU began with the establishment of a campus wide-area wireless network funded by the World Bank through the international centre for Theoretical Physics (ICTP) based in Trieste Italy. The network is tagged OAUNet (INTECU, 2006). Now, the academic subnet of OAUNet currently connects 2 colleges and thirteen faculties equipped with a 20 km of 2 Gigabit fibre and connects to the internet on a bandwidth of 6 Mbps/1.5Mbps bandwidth (INTECU, 2006). In addition to this, OAU also has in her premise eight cyber cafes namely; Eldorado, Infinite Grace, Awo internet café, Rotunda, Conference centre, Firstnet, Cyber haven, unifecs with VSAT installation of varied capacities. All these, are to promote students' educational use of the internet. Goldman et al., (1999) have argued that computer usage has numerous

benefits as it primary assist students learning. Chavez (1997) argued that internet and computer usage can also impact positively on critical thinking, problem solving, prompt feedback and collaborative instruction. Today, with the campus wide-area wireless network at Obafemi Awolowo University (OAU), students can now perform most of their academic activities such as school fees payment, course registration, reading, etc online.

Advancement in technology brings major impacts on education (Haywood 2003). Many universities around the world are expanding their investment in information technology and specifically the internet, and are actively promoting internet use in university education. The internet has come with an evolution that cannot be compared with existing technologies that were before it. Universities are therefore encouraged to fully embrace the internet as the importance cannot be over emphasis.

Methods of ICT skills acquisition among undergraduates

ICT skills is the ability of an individual to identify the information required to satisfy their need, and how to use computer and digital systems to source the information as well as how to use the information collected to solve a felt need. Gilster (1997) noted that ICT skill is the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers. The ability to identify the desired information depends on the knowledge and understanding of the use of ICTs facilities such as the computer, internet and the e-mail. In the current digital age, ICT skills have inevitably been influenced extensively by technological development. The ICT skills that have become increasingly important in the pursuance of a degree-level education will affect both how students manipulate these e-learning resources and how they are used for learning. Thus, the ICT skills that students require increasingly resolve around knowledge creation and information sharing, insight and analysis, and collaboration. Hence, how these skills are acquired is of importance. Beebe (2004) noted that there are different methods in which students can acquire information and communication technology skills; from formal training sessions in school or at college, or informal tuition from friends, family or peers or students can also teach themselves with users manuals. Kumar and Kaur (2006) stated that ICT skills can be acquired through trial and error method, guidance from colleagues and friends, training from college, self instruction, and external courses.

Harris (1996) noted that there is a growing acceptance among academics, education policy-makers, and employer groups that the development of graduate skills is a part of the role of higher education. Recent publications by educational associations are advocating for a more meaningful use of ICT in schools (ISTE, 2000).

Educational technologists are clearly describing what students should know and be able to do with technology. There is increasing recognition that the end result of ICT skills is not knowing how to operate computers, but to use technology as a tool for organization, communication, research, and problem solving. This is an important shift in approach and emphasis. In a bid to integrate ICT skills in schools, the Teachers Registration Council of Nigeria (TRCN) in July initiated a programme tagged The National ICT Skills Acquisitions. The programme was designed to provide the needed ICT skills for students. These packages include MS word, MS excel, type setting and Internet browsing skills (The Guardian, 2003). Korte and Husing (2007) noted that higher institutions are moving from teaching isolated technology skills to an integrated approach. These skills are integrated effectively into the content area curriculum and in classroom assignments, and are tied together in a logical and systematic information process model. Michael and Johnson (2004) noted that successful integrated ICT skills programs are designed around collaborative projects jointly planned and taught by teachers and library media professionals. Information and communication technology skills instruction can and should be imbedded in such a curriculum. Library media specialists, computer teachers, and classroom teachers need to work together to develop units and lessons that will include both technology skills, information skills, and content-area curriculum outcomes.

Kilker (2003) noted that a meaningful, unified ICT skill curriculum must be more than a 'laundry list' of isolated skills, such as knowing the parts of the computer, writing drafts and final products with a word processor, and searching for information using the world wide web. While these specific skills are important for students to learn, the 'laundry list' approach does not provide an adequate model for students to transfer and apply skills from situation to situation. Rowland (2006) noted that the most common motivator to learn new technology skills appears to be instructor use, whether in class or as requirement for projects or presentations. Mattheos et al. (2002) noted that students are generally exposed to some form of ICT's literacy education in their university, in order for them to acquire ICT skills.

Statement of the problem

Information and communication technology (ICT) skills and use of the internet remain a necessity for undergraduate students to be able to participate success-fully in today's global information society. In this technology intensive society, students are required to be proficient in ICT especially computers in today's global society. These computer skills usually consist of basic to advanced knowledge in word processing, presentation, and spreadsheet application as well as the ability to effectively use the internet. However, personal obser-vation has shown that many undergraduate students lack

the skills needed to make effective use of ICT to meet their educational needs. Some undergraduates can not effectively use the internet without calling for an assistant. A personal experience has shown that some undergraduates lack ICT skills as they always seek for assistance in one way or the other while using ICT facilities such as the computer and the internet.

Donn et al. (2009) stated that in the US, students are required to demonstrate computer proficiency early in their educational experience by means of passing an assessment test. However, this is not obtainable in this part of the world. Consequently, most undergraduates may lack ICT skills. In view of the foregoing, this study will investigate the ICT skills and use of the internet by undergraduates in the Departments of Library and Information Science in Delta and Edo States.

METHODOLOGY

Research design

The descriptive design was employed for the study. The descriptive design is considered appropriate because it is capable of bringing out the current status of an event (Egbule and Okobia, 2001). In this case, it is concerned with the current status of ICT skills and use of the internet among undergraduates in the Department of Library and Information Science, Delta State University, Abraka, and Ambrose Ali University, Ekpoma.

Population, sample and sampling technique

The population for this study is 1190. This consists of all regular undergraduates in the Department of Library and Information Science, Delta State University Abraka and Ambrose Ali University, Ekpoma. From the population, 238 undergraduates were selected as sample size for the study. This is in line with Emele and Emele (1995) who stated that sample size should be about the range of 10-30% of the population. Hence twenty percent of the population was selected as sample size for the study. This study employed systematic sampling technique where every student has equal chance of being picked or chosen based on the selection of each nth term within the students. The nth term is 5.

It was a systematic sampling that was based on the premises that all the students were available as the questionnaire was administered during examination in each of the institutions. Since the nth term is 5, the questionnaire was administered with an interval of 5. That is after given to the 1st student based on the sitting arrangement, the next to administer to is the 5th student, so on and so forth.

Instrument

A self developed questionnaire tagged Information and Communi-cation Technology Skills and Use of the Internet by Undergraduates Questionnaire (ICTSUIUQ) was used for collection of data. The questionnaire was divided into two sections: A and B. Section A required the respondents' bio-data information while section B contained the other items (this section B is further divided into 3 parts).

Part 1: Undergraduates' Information and Communication Technology Skills

Part 2: Undergraduates Internet Usage.
Part 3: Method of Information and Communication Technology Skills Acquisition.

Validity and reliability

The survey questionnaire was given to three experts in Library and Information Science Department for scrutiny. Based on the suggestions, comments and observations of these experts, some of the items were removed and substituted while others were modified. To ensure the reliability of the instrument, it was administered twice to twenty students in the Department of Library and Information Science, Nnamdi Azikiwe University, Awka, which is outside the scope of the study. Tests re-test reliability of two weeks interval was later conducted. The result obtained was subjected to a Cronbach alpha and the overall reliability of the questionnaire returned was r = 0.86.

Data collection procedure

Copies of the questionnaire were administered one-on-one to undergraduates in the Department of Library and Information Science, Delta State University, Abraka, and Ambrose Ali University, Ekpoma by the researcher with the aid of two research assistants. The responses were collected immediately.

Data analysis

This study employed both descriptive and inferential statistics in the analysis of data since the study involves research questions and hypotheses. Descriptive statistics such as percentages and frequencies as well as mean were used to answer the research questions.
    Inferential statistics, that is, Pearson Product Moment Correlation co-efficient and t-test were employed to test hypotheses. While Pearson Product Moment Correlation co-efficient was used to test hypothesis 1, the t-test was used to test hypotheses 2 and 3. The hypotheses were tested at 0.05 level of significance. All statistical analyses were subjected to Statistical Package for Social Science (SPSS) version 16.

RESULTS

Respondents; gender profile

Table 1 shows that 64.7% of the respondents are females while 35.3% are males. This shows that there are more female respondents than male.

Respondents' Institutional profile.

Table 2 shows that a majority 144 (60.5%) of the respondents are from Delta State University, Abraka while 94 (39.5%) of the respondents are from Ambrose Ali University, Ekpoma.
    94 is the sample size representing the 20% of the population of LIS students in AAU Ekpoma while the 114 is also the 20% of the population of LIS students of Delsu. The population is given in Table 3.

Table 1. Gender distribution of the respondents.

Gender		Frequency	Percent
Valid	Male	84	35.3
	Female	154	64.7
	Total	238	100.0

Table 2. Institutional data.

Institution		Frequency	Percent
Valid	AAU Ekpoma	94	39.5
	DELSU, Abraka	144	60.5
	Total	238	100.0

Sample and sampling technique

A cursory look at Table 4 with a statistic mean of 2.68 reveals that undergraduates of Library and Information Science Departments in Delta and Edo states possess ICT skills. This is because the statistic mean is above the acceptance point of 2. 0.0. Table 4 shows that a majority of 225 (94.5%) and 222 (93.3%) of the respondents agree that they can start up, log on, and shut down a computer system properly as well as use a mouse, pointing device and keyboard respectively. Also, 192 (80.7%) of the respondents agree that they can download files and images from a Web page. From the findings, it could be deduced that the undergraduates in the Department of Library And Information Science in Delta and Edo States possess ICT skills that will enable them access wide range of electronic information resources that are available on the internet. This finding is in line with Iwona (2008) who reported that undergraduates possess the ICT skills necessary to utilize the growing range of electronic resources. Also, the finding corroborates Haywood (2003) who noted that for students to be successful in their academic pursuit, they must acquire various ICT skills which include the ability to download files and images from a Web page.
    A cursory look at Table 5 with a statistic mean of 2.86 reveals that undergraduates of Library and Information Science Departments in Delta and Edo states adequately make use of the Internet. This is because the statistic mean is above the acceptance point of 2.00.
    Table 5 shows the maximum number of respondents, that is, 218 (91. 6%) and 217 (91.2%) use the internet to search for information and for browsing respectively. 216 (90.8%) use the internet for sending e-mails. From the finding, it can be deduced that one of the basic types of internet usage for students is through searching and browsing. This is in line with Ebersole's (2000) finding stating that the four basic types of internet usage for students are: browsing, e-mail, chat rooms and newsgroup. Students use e-mail to keep in touch with

Table 3. Population of the study.

Name of institution	Population	Percentage
Delta State University, Abraka	720	60.50
Ambrose Ali University, Ekpoma	470	39.50
Total	1190	100.00

Source: Student's statistics for 2011/2012 academic session (HOD' Office).

Table 4. ICT skills of the undergraduates.

S/N	ICT Skills of the undergraduates	Responses								Statistic mean
		Agree		Disagree		Undecided		Total		
		NO.	%	NO.	%	NO.	%	NO.	%	
1	I can start up, log on, and shut down a computer system properly	225	94.5	10	4.2	2	0.8	237	99.6	
2	I can use a mouse, pointing device and keyboard	222	93.3	11	4.6	5	2.1	238	100	
3	I can identify and use icons (folders, files, applications, and shortcuts/aliases)	178	74.8	40	16.8	17	7.1	235	98.7	2.68
4	I can create documents of various types and save in a desired location	159	66.8	48	20.2	30	12.6	237	99.6	
5	I can select, copy, and paste text in a document or desired location and print a document	177	74.4	47	19.7	12	5.0	236	99.3	
6	I can send and open an attachment from an email, using a common email program	146	61.3	62	26.1	27	11.3	235	98.7	
7	I can launch any of the web browsers	122	51.3	77	32.4	34	14.3	233	97.9	
8	I can download files and images from a Web page	192	80.7	29	12.2	15	6.3	236	99.2	

Table 5. The undergraduates' internet usage.

S/N	The undergraduates' internet usage	Responses								Statistic mean
		Agree		Disagree		Undecided		Total		
		NO.	%	NO.	%	NO.	%	NO.	%	
1	Sending e-mails	216	90.8	18	7.6	3	1.3	237	99.6	
2	Downloading documents	199	83.6	30	12.6	8	3.4	237	99.6	
3	Chatting	209	87.8	20	8.4	6	2.5	235	98.7	
4	Browsing	217	91.2	16	6.7	4	1.7	237	99.6	2.86
5	Reading	198	83.2	27	11.3	9	3.8	234	98.3	
6	Search for Information	218	91.6	12	5.0	6	2.5	236	99.2	
7	School fees payment	197	82.8	28	11.8	8	3.4	233	97.9	
8	Course registration	210	88.2	21	8.8	5	2.1	236	99.2	

friends as well as work on a project with someone a hundred kilometers away.

Table 6 revealed that the most popular way of acquiring ICT skills by undergraduates of Library and Information Science Departments in Delta and Edo states is via self-taught with manuals and handbook with total of 161 (67.6%) responses. While more than half of the respondents with 158 (66.4%) responses also acquire ICT skills through courses of study at the university as well as friends, family members and other students. This is in line with Mattheos et al's (2002) finding which stated that students are generally exposed to some form of

Table 6. Ways through which undergraduates acquire ICT skills.

S/N	ICT Skills Acquisition	Responses							
		Agree		Disagree		Undecided		Total	
		NO.	%	NO.	%	NO.	%	NO.	%
1	It was integrated into my courses of study at the university.	158	66.4	60	25.2	13	5.5	231	97.1
2	In other courses studied outside the university.	146	61.3	66	27.7	22	9.2	234	98.3
3	Self-taught with manuals and handbook.	161	67.6	52	21.8	19	8.0	232	97.5
4	Taught by friends, family members or other students.	158	66.4	60	25.2	13	5.5	231	97.1
5	Through trial and error methods.	118	49.6	93	39.1	18	7.6	229	96.2
6	Taught by cyber café/ information centre staff.	137	57.6	70	29.4	20	8.4	227	95.4
7	Through tailored model such as Geronet.	53	22.3	130	54.6	47	19.7	230	96.6

Table 7. Correlations.

		ICT skills	Use of internet
ICT.SKILLS	Pearson correlation	1	.468[**]
	Sig. (2-tailed)		.000
	N	238	238
USE O .INTERNET	Pearson correlation	.468[**]	1
	Sig. (2-tailed)	.000	
	N	238	238

**. Correlation is significant at the 0.01 level (2-tailed).

ICT's literacy education in the universities.

Research hypothesis

1. There is no significant relationship between the ICT skills possessed by undergraduates of LIS Departments in Delta and Edo states and their internet usage.

From Table 7, with the Pearson Correlation value of 0.468 at 0.00 alpha level, and N= 238, the null hypothesis is accepted. This is because calculated P value (sig. (2-tailed)) is less than 0.05. This implies that there is no significant relationship between the ICT skills possessed by undergraduates of LIS Departments in Delta and Edo states and their internet usage. It can be deduced from the findings that ICTs skills possessed by undergraduates of LIS Departments in Delta and Edo states does not really influence or predict the actual utilization of the internet.

RECOMMENDATIONS

Library and Information Science Department in Delta and Edo States should constantly review its curriculum to nclude more practical courses on ICT skills needed to

explore electronic resources.

The university authority should provide more adequate ICT training; this will enhance utilization of internet services.

ICT facilities such as the computer, internet services etc. should be made available for students to access wide range of information resources.

Conclusion

The study concludes that undergraduates of Library and Information Science Departments in Delta and Edo States possess ICT skills and they make adequate use of the internet. However, the study revealed ICTs skills possessed by the undergraduates do not really influence or predict the actual utilization of the internet. The study also concludes that universities must encourage and enable students to develop, through their academic study, a range of explicit attributes. One of those attributes, particularly in this day and age, is competency in ICT skills.

Conflict of Interests

The author have not declared any conflict of interests.

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