

**INFORMATION AND COMMUNICATION TECHNOLOGY LITERACY
SKILLS NEEDED FOR ACCESSING ELECTRONIC INFORMATION
RESOURCES AMONG UNDERGRADUATES IN NNAMDI AZIKIWE
UNIVERSITY, AWKA**

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Abstract

This research work investigated the information and communication technology literacy skills for accessing electronic information resources among undergraduates' students in Nnamdi Azikiwe University, Awka. The research design adopted for this study was descriptive survey research design. This study was carried out in Nnamdi Azikiwe University, Awka in the department of Library and Information Science. The population of the study was made up of one hundred and ten (110) library and information science students of Nnamdi Azikiwe University Awka. There was no sample because the population was manageable for the researcher to handle. The instrument used for data collection was a validated structured questionnaire. The method employed in the analysis of data collected was mean. The findings shows that the undergraduates' students in the department of library and information science possessed the necessary skills that will enable them to access the electronic information resources, the study also found out that the major problem that students encounter in the process of accessing these electronic information resources is constant erratic power supply. Based on the findings, it was recommended that the university administrators should work hand in hand with the university librarian to meet the needs of the undergraduates by providing the necessary facilities both human and materials that will enhance their ICT skills in other to access the electronic information resources in the library.

Keywords: Information and communication technology, ICT literacy skills and Electronic information resources

Introduction

Information and Communication Technology (ICT) refers to all equipment, application and services that involve communication. Gadgets such as computers, cell phones, television, radio and cellular systems are all part of Information and Communication Technology. ICT is germane to every student. Globally, students are seen as adverse users of Information and Communication Technology and for it to be highly utilized

effectively and efficiently by students, they must possess all the needed Information and Communication Technology literacy skills. Students need ICT literacy skills such as using computer to manage files, word processing, spread sheet, data bases, presentations, internet, and e-mails which will aid them to achieve their academic goals (Ugwuanyi, 2009). The 21st century has witnessed tremendous achievements in the area of Information and Communication Technology (ICT). All over the world ICT has taken over the school system since the students have found out that its features are necessary and vital to their academic work and has also turned the whole world into a global village. In addition, it is also becoming increasingly difficult for one to function effectively in the society without ICT literacy skills.

Information and Communication Technology literacy skills is the set of skills required by the undergraduates to enable them make meaningful use of electronic information resources appropriate to their academic needs. The ICT literacy skill of a student is a relative measure of the student's capacity to make appropriate use of ICT tools which includes electronic information resources for educational purposes. ICT literacy skill includes an ability to independently operate personal computer system, ability to use software for preparing and presenting work, ability to use the internet and its various features as communication device, and an ability to access and use information from World Wide Web. These are seen as attributes of an ICT literate individual, which also encompass the skills or abilities to access, retrieve, store, manage, integrate, evaluate, create, and pass information via the internet. All these are geared towards the ability of the ICT literate individual to locate and access the needed electronic information resources that are vital for their academic endeavor.

Electronic information resource (EIR) is information source that a library provides access to via electronic format. It could also mean any material in digital format that are accessible electronically. Dadzie, (2015) opines that electronic information resources are valuable research tools that complement the print-based resources. The advantages of EIR according to Dadzie include access to information that might be restricted to the users due to geographical locations, easy access to information via online index. Electronic information resources contain current information because they are updated frequently, offer research capabilities, flexible in storage, and they enable access to information without the restriction of time and location. This electronic resource has made it possible for the libraries to meet the needs of their users and the academic needs of the students globally. With the help of EIR, students can access the library from any location they are provided that they are connected and have access to the library website.

Libraries approach a crisis point in financing collection development, these new technologies offer possible ways to reduce cost and revolutionize ways to access information. Many libraries especially academic libraries subscribe to many electronic

information resources database in order to provide members of the academic community (students and academic staff) access to them free of charge (Oketunji, Okojie & Abdullahi, 2008). There are also some electronic resources that are none-fee based that academic also provide access to. When these electronic resources are acquired, maintained and controlled in the library, they become the library's electronic resources. Examples include e-full text journals, e-books, e-technical report, e-research journals, e-newspaper, e-dictionaries, e-encyclopedias, digital images, online databases in varied digital formats, Adobe documents, web pages (.htm, .html, .asp) and so on. Due to licensing agreements according to (Dadzie, 2015) only faculty, students and staff can access library resources. Many of the databases allow users to create personal profile in order to keep track of new content facilitated through electronic mails of rich site. Electronic information resources are products of information and communication technologies and they have been found to be relevant to the teaching, learning and research process in the universities. However, in order to utilize the growing range of electronic information resources, students must acquire and practice necessary skills.

Although, so many students lack the above mentioned skills they find it difficult to access electronic information resources, in this regard Ugwuanyi (2009) stated that most students find it difficult to make use of necessary information resources they obtained because of the fact that they lack basic information and communication technology literacy skills. In addition, utilizing electronic information resources by students who possess these skills is also a herculean task probably as a result of inadequate facilities in the library. This assertion motivated the researcher to survey Information and Communication Technology literacy skills needed for accessing electronic information resources among undergraduates of Library and Information Science Students in Nnamdi Azikiwe University, Awka.

Statement of the Problem

The knowledge of ICT skills for future life as well as enabling the positive and successful use of the electronic information resources. The success of any academic achievement is tied to the use of information and communication technology as well as Electronic Information Resources. In order to utilize the growing range of electronic information resources, students must acquire and utilize the skills necessary to exploit them. It is obvious that users of electronic information resources must possess information and communication technology literacy skills, respond effectively to an ever changing environment. Users of electronic information resources need more than just knowledge base of ICTs skills; they also need the basic skills for exploring it. It appears that students in Library and Information Science lacks the ICT skills necessary for accessing Electronic Information Resources, and this could be the reason they are not making use of electronic information resources to satisfy their academic needs. The researcher, therefore seek to investigate the skills needed by undergraduate students in accessing

electronic information resources from which they would improve accessibility and effective use of electronic information resources.

Purpose of the Study

Specifically, the study intends to:

1. Determine the information and Communication Technology literacy skills and the information literacy needed by Library and Information Science student for accessing electronic information resources.
2. Perceived challenges to the use of electronic information resources
3. Strategies for overcoming the perceived challenges of electronic information resources

The following research questions guided the study

1. What are the information and communication technology literacy skills and information and information skills needed by Library and Information Science students in accessing electronic information resources?
2. What are the perceived challenges to use of these electronic information resources?
3. What are the strategies for overcoming the perceived challenges of these electronic information resources?

Review of Related Literatures

Information and communication technology skills required by students include using the computer to manage files, word processing, spread sheet, database, presentations, internet and e-mail. This is very important because information and communication technology skills have advanced from traditional way of using pen, pencil, paper and printed books which were the primary mode of writing, reading, recording and transferring information. Today the society has changed from the traditional society to computer-centric society. Silicon Integrated System (2010) stated that with information and communication technology literacy skills, students will take advantage of all computerized facilities and enhance library work as well as rapid growth of the economy. The internet is now the dominant mode of information exchange in libraries in digital age, and it is no longer a luxury but a necessity which students must accept, acquire the skill and adopt to close the digital gap.

The students of Library and Information Science, particularly those who are to access the resources in the electronic format in the library should have search skills such as ability to use the internet, use of basic computer application, word processing, spread sheet,

electronic mail and possibly more advanced technologies such scanners, e-advertising presentation of data through the use of internet, developing web pages, construction of website for resource sharing among libraries and use of digital multimedia for seminar presentation. Abdullahi and Haruna (2008) is of the opinion that information and communication technology literacy skills and understanding that is required by student to enable meaningful use of information and communication technology tools such as internet, web database, e-mail and spread sheet. The information and Communication Technology literacy skill of a student is a relative measure of the student's capacity to make appropriate use of information and communication technology for educational and learning purposes. More so, it involves the level of skills needed by to independently function in a web based, on-line environment. They are: ability to type sentence independently using Microsoft Word, Changing text alignment, understanding short cuts, changing margin and line spacing, account balance and credited account.

Ugwuanyi (2009) noted internet skills such as World Wide Web (www), developing WebPages, opening e-mail, creating messages, sending and receiving e-mail messages, opening chat groups as part of ICT literacy skills. Ugwuanyi went further to mention world wide web (www) skills such as knowing how to use the web, using search engines like Google, MSN, yahoo, legal mail, etc. Using keyboard to search or other methods of communication literacy skills are more efficient, productive and more valuable to their environment because they work at high speed-when using computers, they are fast and almost errorless and as a result of this, employers prefer workers who have information and communication technology literacy skills at all levels than those who do not have. Library and information science student require ICT literacy skills such as digital technology skills, software, Microsoft excel, data processing, pictographic interface, at all level to operate.

The students should be able to understand basic computer hardware component and technology. They should be able to start up, log in and shutdown a computer system properly, use mouse pointing device and keyboard, use help and know how to troubleshoot routine problems, identify and use icons, (folders, files, applications and short cuts/aliases), minimize, maximize and move windows, identify common types of file extension such as doc, docx, pdf, html, jpc, glf, xls, ppt, pptx, txt, exe, etc., check how much space is left on a device or the storage device, back up files, download and install software on a hard disk, understand and manage the file structure of a computer, check for and install operation system updates.

This ICT literacy skill involves the ability to create document of various types and save in a desired location and retrieve an existing document from the saved location. The student should be able to select, copy and paste text in a document or desired location, print a document, name, rename copy and delete files, understand and know how to use

the following types of software programs, word processing Ms Word, Google docs, Google drive among others. This has to do with E-mail, using a common e-mail programmer Ms outlook, email, apple email, Osuyi (2012) the student should be able to compose, send, reply, forward messages, add attachments to a message, retrieve attachments from email message, copy, paste and print messages content, organize email folders, understand what an electronic discussion list is and how to sign up and leave one.

The students should be able to possess the internet skills to be able to set up an internet connection and connect to the internet. In this regard, the students should have a working knowledge of the world wide web and its functions including basic site navigation, searching, installing and upgrading a web browser, using a browser effectively include book marks, history, forward and backward buttons, using search engines and directories to find information on the web, downloading files and images from a web page, understanding and effectively navigating the hyperlink structure of the web ray (2010). Finally the student should be able to understand how to keep information safe while using the internet.

Information literacy skills is the ability to know when information is needed, why it is needed, where to get the information, evaluate the information and disseminate same information to the information seeker Ajunwa & Anyakoha (2013). Information needs various skills such as ethic and responsibility to use information how to communicate and share the acquired information and how to manage your findings. He went further to say that students with information literacy skills are the ones that have the capacity for abstracting that will lead to development of hypothesis, while those student with low information literacy skills are those that can make use of keywords to search for the information they need for their research. This is the ability for an individual to make effective use of library electronic information resources for advancement of knowledge toward the research that is being carried out, ability to conduct literature search, ability to cite and reference material properly.

The problem associated with ICT literacy skills, information literacy skills maybe lack of funding, lack of appropriate technical education, personal attitude. (Gbaje 2007) described poor infrastructural resources as a major constraint in the implementation of these skills. According to Omekwu (2014), ICT and information literacy skills are capital intensive ventures, both in the acquisition, installation, maintenance, training, and sustainability. With these problems stated, Ania (2004) asserted that libraries and their ICT budgets in Nigeria are comparatively low, meaning that many libraries have no annual budgets on information and ICT literacy training. Agreeing to this report, Ali (2005) stated that inadequate funding to support and sustain information, research and ICT literacy skills is not only peculiar to Nigeria alone or Africa as a sub region, but it is a global phenomenon as it the bane of ICT, information literacy skills adoption in

industries. Therefore, finance is the most important barrier inhibiting organization from fully actualizing these skills and the unserious attitude of students because some student have negative and laissez-faire attitude towards the use of electronic information resources and infrastructure and feel they should not be trained with the skills needed to access electronic information resources.

Information and Communication Technology (ICT) has revolution and brought transmission and storage which has brought the globe to the doorstep of people. In our society today, knowledge is power, individuals with adequate ICT literacy skills stand to gain more in the society, more so there are lots to gain from ICT literacy skills by students of library and information science who acquired these skills. The Nigerian National Policy for information Technology in 2001 is a right step towards acquisition of ICT literacy. Another strategy is that ICT and IT skills should be made international standard and included in school curriculum. (Akpa & Abba, 2009) have suggested that some strategies which includes self-learning, through group influence and government intervention with the release of funds for improving bandwidth and other gadgets needed in the library will go a long way to enhance ICT and IT literacy skills.

Methods

The research design adopted for this study was descriptive survey research design. The study was carried out in Nnamdi Azikiwe University, Awka in the Department of library and information science. The population is one hundred and ten(110) library and Information Science student of Nnamdi Aikiwe University Awka which is 100 level 30, 200 level 38 and 400 level 42. Year 3 students were on industrial training during the period of this research hence they were excluded from study. The entire population was used for the study because the number was small and enough for the researcher to manage. The instrument used for data collection was a validated structured questionnaire. The data collected was analyzed using mean.

Presentation of data

Research Question 1: what are the ICT and IT literacy skills needed by library and information science students for accessing electronic information resources?

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Table 1: Mean rating on student ICT and IT literacy skills needed for accessing electronic information resources

S/N	Information and communication technology literacy skills	X	Remark
1	Ability to use the internet to find and navigate around web	3.00	Agreed
2	Ability to use software for preparation and presenting work	3.00	Agreed
3	Ability to use e-mail to read and send messages	3.00	Agreed
4	Ability to independently operate personal computer	3.00	Agreed
5	Ability of the student to utilize the structure of database	3.00	Agreed
6	The ability to input instruction into the computer by the Students	3.00	Agreed
7	Ability to understand the ways in which the instructions are Linked with one another	3.50	Agreed
8	Ability to retrieve information	3.50	Agreed
9	Ability to evaluate information	3.00	Agreed
10	Ability to make good use of information	3.00	Agreed
Grand Mean score		3.10	

In table one, ten items (1, 2, 3, 4, 5, 6, 7, 8, 9 and 10) obtained mean rating above the criterion mean of 2.50 indicating highly needed on information and communication technology and information Technology literacy skills by the students.

Research Question 2: what are the perceived challenges to the use of electronic information resources?

Table 2: Mean rating of student on the challenges to the use of electronic information resources

S/N	Challenges to the use of electronic information Resources	X	Remark
1	Insufficient electronic resources	3.00	Agreed
2	Limited access	3.00	Agreed
3	Poor network connection	3.00	Agreed
4	Poor archive access	3.09	Agreed
5	Lack of management of information	3.00	Agreed
6	Improper orientation on electronic resources	3.80	Agreed
7	Lack of electronic resources awareness	3.00	Agreed
8	Slow down loading	3.63	Agreed
9	Erratic power supply	3.18	Agreed
Grand Mean		26.6	

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In table 2, all the nine item (1, 2, 3, 4, 5, 6, 7, 8 and 9) Obtained mean rating above the criterion mean of 2.50 indicating agreed to the challenges encountered by the students in accessing electronic information resources.

Table 3: Mean rating of students on strategies the challenges to use of electronic information

S/N	Strategies for reducing the challenges to the use of electronic information	X	Remark
1	Stable electricity back up	3.20	Agreed
2	provision of more computer system	3.27	Agreed
3	Improve internet connecting	3.00	Agreed
4	Creating awareness on available electronic Resources	3.50	Agreed
5	Provision of adequate ICT facilities	3.00	Agreed
6	Arranging for information literacy training	3.00	Agreed
7	Creating room for proper orientation on the Importance of electronic information Resources	3.00	Agreed
	Grand Mean Score	3.13	Agreed

The content of table 3 indicates that all items rated above criterion mean of 2.50. This indicates that the students agreed on all the items as ways of salvaging the challenges students encounter in using electronic information resources

Discussion of Results

The findings of this study revealed that information and communication technology and the information technology literacy skills needed by the student for accessing electronic information resources are possessed by the student such skills include: ability to use the internet to find and navigate around websites, ability to use software for preparing and to present work, the ability to use e-mail to read and send messages and the ability to independently operate personal computer. The finding of this research is in line with the report of Uguanyi (2009) whom stated that accessing electronic information resources required some special information and communication technology literacy skills such as knowledge on how to independently operate personal computer as well as the ability to use software.

The finding of this study indicates the information literacy skills that undergraduate student should posses for accessing electronic information resources. The skills include: knowledge of the structure of database, knowledge of the instructions of input into the

computer by the searcher, ability to evaluate information and ability to make good use of the information. This result in line with the assertion of Silicon Integrated System (2010) which states that user of electronic information resources should possess information Literacy skills practically, ability to retrieve, evaluate and use information. The result of this study revealed that students often find it difficult to access or use electronic information resources. Such problems include: insufficient electronic resources, limited access, poor archive access, lack of management of information, improper orientation on electronic resources and lack of electronic resources awareness, slow down loading and erratic power supply. This result is in line with the report of Gbaje (2006) that stated a lot of factors that hinder students from accessing electronic information resources particularly, erratic power supply and inadequate electronic information resources.

The findings of this study revealed some possible solution to the problems encountered by students in accessing electronic information resources. They include: unstable electricity back up, provision of more computer system, improve internet connectivity, creating awareness on available electronic resources, provision of adequate ICT facilities, arranging for information literacy and creating room for proper orientation on the importance of electronic information resources. The result is in line with the research work carried out by Omekwu (2014) that stated that provision of adequate electronic information resources and constant power supply among other things will promote easy access to electronic information resources

Recommendation

Based on the findings of this research work, the researcher is recommending that the university management should pay more attention to the library needs so that the library and its management will be able to provide all the necessary facilities and materials that can be acquired in order to equip students' use of the electronic information resource.

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