RESEARCH ARTICLE

EFFCTIVE UTILIZATION OF DIGITAL LIBRARY SERVICES FOR INFORMATION SEARCH AMONG PSYCHOLOGY STUDENTS: A PERSPECTIVE ON IMO STATE IINSTITUTIONS

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ABSTRACT

This study examined the utilization of digital library services by psychology students in Imo State; four objectives and four research questions were stated to guide the study. The study adopted descriptive survey design using questionnaire which contain 29 items as instrument for data collection. The population of the study was 1,246 while a total sample of 230 students were used as the sample population. The data collected was analyzed using mean. It was found among others that both AIFCE and IMSU have fair functional digital library. The constraints facing the utilization of digital library services by students are insufficient power supply, insufficient fund, lack of staff students' awareness, and insufficient computers. The researcher recommended among others things that; students should have to be inculcated with the habit of making effective use of digital libraries for their academic works.

Keywords*:* Utilization, digital, library, information, psychology

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1.0. INTRODUCTION

The issue of high standard and quality in our universities cannot be complete without considering the quality of the school library, since reading and research are considered as some of the most important factors of academic achievement (Leiner, 1998). In order to achieve the objectives of tertiary education, the Library must be made to optimize its output. One of such objectives is to satisfy specific and general research needs of lecturers and students in particular. The word Library originated from the Latin word 'Liber' meaning book. Over the years, the term library has gone through series of conceptual and morphological transformations. Hence, today the Library is defined as a collection of books and non-book materials (Nwaokocha, 2014). According to Nnadozie (2007), the primary purpose of academic libraries is to support teaching, research and community extension services.

The users of a university library are students, researchers, lecturers, support staff (non-teaching staff) and members of the local community in which the university is located. Students here refer to those who have enrolled in various disciplines pursing course programmes in the university leading to the award of bachelor, postgraduate diploma, masters or doctor of philosophy. To a large extent, the quality of a university is measured by the services provided by the library because of its unique position in overall university system. In the opinion of Gideon (1999) Libraries in Nigerian universities are institutions established for the furtherance of research and scholarship. As a way of ensuring that this objective is achieved, university libraries engage in a number of activities and offer some services to the clientele.

The library sustains the cultural, social, academic and intellectual works of humanity through the acquisition, management, preservation, dissemination and use of books and other non-documentary sources of information. Thus, the libraries are influenced by their parent, institution especially in the acquisition of materials. Thus, an academic library according to Nwosu (2000) is described as the singular and the most important resources in the pursuit of the general goals and objectives of institutions of higher learning. Academic Library which is also called a research centre provides such services as acquisition of materials, provision of material resources, reprographic services and dissemination of information in different formats namely books, journals, and visual, Compact Disc Read Only Memory (CD-ROM) etc. However, since the inception of Information and Communications Technology (ICT), the services of the academic library have taken another dimension.

Libraries are now including electronic, digital or virtual information in their collection. According to Abubakar (2010), the world is witnessing a rapid and progressive transformation as a result of Information Technology (IT) revolution, which has predominated all aspects of societal development. One of such transformations has manifested in the form of digital libraries. The revolution of digital libraries has ensured the emergence of global networked environment that has dramatically changed the face of libraries, their functions, services as well as their storage and delivery system.

The term 'digital library' is a library where users can access and retrieve information by electronic means. It is thus associated with electronic library. It involves the use of highly sophisticated computers and telecommunications system in receiving and sending information which shows that an electronic signal is there or is not there. A lot of authors and researchers have come up with diverse definitions, concepts and overview of digital libraries, which is revolutionary that is fast sweeping across the world of information and communication technology especially in the profession librarianship.

Arms (2006) defines digital library as a managed collection of information, with associated services, where the information is stored in digital formats and accessible over a network. A crucial part of this definition is that the information is managed. A stream of data sent to earth from a satellite may be digital but is not a library. The same data when organized systematically becomes a digital library collection. Digital libraries contain diverse information for use by many different users. Digital libraries range in size from tiny to huge. They can use any type of computing equipment and any suitable software. The unifying theme is that information is organized on computers and made available over a network with procedures to select the material in the collections to organize it. Digital library being an innovation created to aid library services has come to be a global trend in academic library services but, its utilization by staff and students of some universities is yet to be ascertained. Thus, this research work seeks to investigate the utilization of digital library services by staff and students in academic libraries in Imo State.

1.1. Statement of the Problem

Sequel to the emergence of Information and Communications Technology, there has been dynamic shift from analogue to digital method in every aspect of human activity. The academic libraries are not left out of this. According to Ayodeji (2009), virtually all academic libraries are at different levels of electronic, digital or virtual state in their services to ensure that they give quality output and avoid being isolated.

The existence of digital or virtual libraries plays a vital role in information handling and dissemination in the research activities of today. The greatest strength of the digital library is the case of accessibility as materials from different libraries are organized in a virtual space using computers and computer networks, thus allowing users to have remote access to library collections within and beyond instantaneously. It has been observed that most digital libraries in Nigeria are saddled with a myriad of problems ranging from poor electricity, few computers and poor internet facilities which are the essential elements of a digital/virtual library. On the other hand students have poor attitude to the use of library seeing the library as more stressful than what they come to read or research.

However, this study stresses that the development of digital libraries 'should not be conceived as a panacea for the myriads of challenges facing higher education in Nigeria but that it is a technology that promises to address some of their challenges. The implication of this is that the idea behind the conception of digital libraries in institutions of higher learning has not

being utilized but only speculations and assumptions. This is the gap in knowledge this study intends to fill.

1.2. Scope of the Study

This research aims to determine the utilization of digital library services by *Psychology* students in Imo State University (IMSU) and Alvan Ikoku Federal University of Education, Owerri (A.I.F.C.E). It is strictly limited to IMSU and A.L.F.C.E Digital Library units, with the exclusion of other routine library services. It covers the use of digital library by students at all levels in the two institutions.

1.3. Purpose of the Study

The main purpose of the study is to investigate the utilization of digital library services among *Psychology* students in tertiary institutions. Specifically, the study seeks to:

1) Ascertain the extent of *Psychology* students awareness of digital library services in tertiary institutions' libraries in Imo State.

2) Ascertain the extent of *Psychology* students use of digital library services in tertiary institutions' libraries in Imo State.

3) Ascertain *Psychology* students' perception towards utilization of digital library services in tertiary institution in Imo State

4) Find out the constraints facing the utilization of digital library.

1.4. Significance of the Study

Result of the findings on the extent of *Psychology* student awareness on the existence of digital library unit will help *Psychology* students to have the privilege to use digital services in the library for researches on the assignments, term papers seminars and projects.

The findings on the existence of patronage of the digital library unit by students will help the library staff and the school authority examine their efforts in the establishment of digital library services and make amends where they are lacking in order to encourage maximum use of the unit. On the aspect of having requisite technology to facilitate utilization by *Psychology* students, the findings will enable the management to understand where they are lacking and improve on it.

However, this research would add to the body of literature available on digital library services while creating awareness on the wide range of services which digital libraries offer, in academic institution.

1.5. Research Question

1) What is the extent of *Psychology* students' awareness of the existence of digital library services in tertiary institution?

2) To what extent do *Psychology* students utilize digital library services in tertiary institution in Imo State?

3) What is *Psychology* students' perception towards utilization of digital library services in tertiary institutions?

4) What are the constraints facing the utilization of digital library

2.0. CONCEPTUAL CLARIFICATIONS

2.1. Digital Libraries

The concept of digital libraries has been described by scholars and writers alike in different ways. In other words, the concept means many things to different people. The terms electronic library, digital library and virtual library have been used synonymously by different writers. However, there exist some basic difference as noted by Tennet (1999) who posits that an electronic Library consists of electronic materials and services such as video tapes and Compact Disc Read Only Memory (CD- ROM), while a digital library consists of digital services and materials that are stored, processed and transferred via digital (binary devices and networks). The virtual libraries on the other hand consists both digital and electronic libraries existing, virtually. Digital libraries can exist without a virtual library but virtual libraries cannot exist without digital libraries. A virtual library provides remote access to digital collections such as electronic documents, digitalized pictures, sound and video.

Arms cited in Abubakar (2009) defines digital library as a managed collection of information with associated services where information is stored in a digital format and accessible over a network the Digital Library Federation (1998) sees digital libraries as organizations that provide resources, including the specialized staff, to select structure, offer intellectual access to, interpret, distribute, preserve the integrity of and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities. In another perspective, Rosenberg (2006) sees digital library as a library where users access resources by electronic means and where information is delivered to users electronically.

Based on the Digital Library Federation's definition, Cleveland (1998) listed the following as characteristics of a digital library.

- ❖ Digital libraries are the digital face of traditional libraries that include both digital collections and traditional, fixed media collections. So they encompass both electronic and paper materials.

- ❖ Digital Libraries will also include digital materials that exist outside the physical and administrative bounds of any one digital library. Digital libraries will include all the processes and services that are the backbone and nervous system of libraries. However such traditional processes, though forming the basis of virtual library work, will have to be revised and enhanced to accommodate the difference between media and traditional fixed media.

- ❖ Digital libraries will serve particular communities or constituencies as traditional libraries do now, though these communities may be widely dispersed throughout the network.

- ❖ Digital libraries will require both skills for libraries as well as those of computer scientists to be viable.

- ❖ Digital libraries are an emerging concept in Nigeria, even though today's libraries in the developed countries are routinely providing information and services in digital form.

Borgman (1999) having a similar view with Digital Library Federation states that digital Libraries have unique characteristics that differ from traditional libraries and their approaches to information provision. From a traditional Librarian's point of view, digital libraries present a transformative model of a large scale user-center organization that is moving toward an integrated form with various components. However, the main purpose of digital libraries remains consistent with that of traditional libraries in that the purpose of digital libraries is to organize, distribute, and preserve information resources just as it is for traditional libraries (Khan and Ahmed, 2013).

Lapnch (1994) opines that digital librarian provides users with coherent access to a very large, organized repository of information and knowledge. This makes digital library a technical process According to Trivedi (2010) the purposes of digital library include;

i.   To expedite the systematic development of procedures to collect, store and organize information in digital form.

ii.   To promote efficient delivery of information economically, to all users.

iii. To courage co-operative efforts in research resource, computing and communication networks.

iv.   To strengthen communication and collaboration between and among educational institutions.

v.   To make leadership role in the generation and dissemination of knowledge.

vi.   Digital libraries promise new societal benefits. One is elimination of the time and space constraints of traditional "bricks-and-mortar libraries". Unlike libraries that occupy buildings accessible only to those who walk through their libraries reside on inter-networked data storage and computing systems that can be accessed by people located anywhere in the world. When the full potential of a digital library is realized for a particular community, people shall be able to access all human knowledge hosted in that digital database from any location. Digital libraries that are accessible over internet provide opportunities to advance knowledge and dramatically improve the quality of life.

In line with the ideas of above cited authors, Ayodeji (2009), Kahnichenko (2003) reveal some advantages of digital libraries which include the following:

i.   Nearly unlimited storage space at a much lower cost.

ii.   Re-allocate funds from some staff, collection maintained and additional books.

iii.   No physical boundary.

iv.   Round the clock availability.

v.   Multiple accesses.

vi.   Enhanced information retrieval.

vii.   Preservation for some print materials.

viii. Added value

ix.   Universal accessibility

Ehinaya (2012) states that, digital libraries in education are, ways of restructuring the current higher education enterprise into global knowledge and learning industry. One of the natural responses to the above challenges consists in introducing the digital library in Education as a cure of networks of learning environments and resources, that is;

❖ Designed to meet the needs of learners, in both individual and collaborative settings;

❖ Constructed to enable dynamic use of a broad array of materials for learning, primary in digital formats;

❖ Managed actively to promote reliable anytime, anywhere access to quality, collections and services available both within and outside the network (Jones, Sally and MeNab; 2010).

The digital library must not be seen as merely a digitalized collection of information object plus related management tools but as an environment bringing collections, services, and people to support the full cycle of creation, use, new authoring, and preservation of data, information, and knowledge works on digital libraries aims to help in generating, sharing, and using knowledge so that communities become more efficient and productive and the benefits of collaboration are maximized. It seeks to support existing communication and to facilitate the emergence of new communities of research and education.

2.2. The Functionality of Digital Library Services in Academic Libraries

The increase in the value and demand for information poses a challenge on higher institutions' libraries in Nigeria to offer more effective services to users. It is in this height that a number of higher institution libraries have embraced the inclusion of digital library service to meet to the challenges of learning and research of today. Ya'u (2003) stresses that a digital library provides value added solution for all higher education institutions and facilitate on-line access to an enormous current volume of academic information.

Digital library has an opportunity to address the scarcity of teaching and research materials in libraries of higher institutions. An indigenous digital library would allow the institutions and indigenous researchers to share their own research outputs with the global community as well as ensure the preservation of Nigeria cultural heritages (Fadelen, 2010). Okebukola in Russel and Dlamni (2002), argue that a virtual library would improve the quality of teaching and learning through the provision of current e-books, journals, and other library resources. It will also enhance scholarship, research and lifelong learning through the establishment of access to shared global virtual archival collections.

The NUC was shouldered with the task of building of National Virtual Library Project that will enhance access to locally available resources and international library collections for sharing with university libraries all over Nigeria using digital technology. A virtual library facilitates, access to information resources such as database, electronic journals alerting services, electronic reference tools and quality vested e- resources will need to be managed by libraries and information professionals who understand information needs of users (Gbaje, 2007).

According to Poelmans, Truyen and Desle (2009) during the learning process students are responsible for the management of their own information processes. After their graduation, the job market expects them to function as mobile knowledge workers. It is therefore vital that students acquire the right attitude and skills in order to survive in this information society and to deal with the ceaseless information flood.

2.3. Students' Use of Digital Library Services

Evaluation of digital library has to be user-centered in order to determine its effectiveness. Borgman (2000) wrote extensively regarding digital libraries from a user-centric perspective. He provided a multi- disciplinary holistic human-centered, perspective on the global information infrastructure. Harless and Allen (1994) define usability as the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use. Usability has user focus. It is different from functionality and is not equivalent to accessibility. Usability is all about making website content available to and usable by users (Adebayo and Adekunle, 2013).

Furthermore, Bland ford and Buchanan (2002) conclude that usability is technical, cognitive, social and design oriented and it is important to bring these different perspectives together, to share views, experiences and insights. Indeed, digital library development involves interplay between people, organization, and technology. The usability issue should look at the system as a whole, not as an entity. Among other ways to evaluate usability are formal usability testing, usability inspection, focus groups, questionnaires, think aloud, analysis of site usage logs, cognitive walkthrough, heuristic, evaluation, claims analysis, concept based analysis of surface, structural misfit s paper prototyping and field study (Askin, 1998 Pearrow 2000 and Synder, 2003). According to Thanuskodi (2013), some students sometimes use digital information for reasons other than educational. The effect of the digital information in education is, hence, relatively limited.

2.4. Technological Facilities Needed for Digital Library Services

According to Mayank (2010) digital library is not a single entity. It requires technology link and the resources of many collections. The links between digital library and their resources are transparent to users. Digital library collections are not limited to document surrogates bibliographic records. They are the actual digital objects such as images, texts etc.

Digital library collections contain permanent documents. The digital environment enables quick handiness and for ephemeral information. Digital libraries are based on Digital technologies. The assumption that digital libraries will contain only digital materials may be wrong. Digital libraries are often used by individuals working alone. The physical boundaries of data have been eliminated. Accurengti (2012) opines that, to effectively and successively build resources for digitalized purposes in academic libraries, it must be equipped in terms of technical architecture, building the resources, handling of intellectual property and effective accessibility. In digitalization unit, process of digitization of thesis and dissertations, microforms are being carried out (Ndukwe 2005). Anasi (2012) posited that in order to carry out digitization of resources, hardware and software are required to carry out digitization of resources. The management authority acquired both hardware and software while staff/professional and non-professional staff will be deployed to the section to begin the

digitization work (Beny, 1996). Hence type of hardware acquired by the library for the unit will be; computers, compact disk (CDs), scanners (document model 752 scanner).

3.0. METHODOLOGY

The researcher adopted the survey design method which enabled the researcher to carry out the study. The population of the study comprises all the final year student researchers of IMSU (562) and A.I.F.U.E (684) both in Owerri Imo State- (1,246). A sample of two hundred and thirty (230) students and twenty- seven constituting approximately 20% of the total population was used for the study. The researchers distributed questionnaires to the respondents and collected after some days.

4.0. RESULTS AND DISCUSSION

4.1. Result Presentation-

Research Questions One: What is the extent of *Psychology* students' awareness on the existence of digital library services in tertiary institutions in Imo State?

Table 1: Mean and standard deviation on *Psychology* students' awareness on digital library.

S/N	MEAN	SD	DECISION
1.	3.4	0.1	Accepted
2.	3.3	0.1	Accepted
3.	3.4	0.1	Accepted
4.	3.4	0.1	Accepted

Grand Mean 3.38

Result in the Table one shows that all the items were above 2.5. This implies that *Psychology* students are aware of the existence of digital library services in tertiary institutions in Imo State.

Result from Table 1 revealed that all mean scores for the item statement were greater than the criterion mean of 2.5. Also the cluster mean of 3.4 showed a strong assertion for the research question. The researcher therefore concluded that the student is aware that his institution has digital library, aware of the functions of their school digital library, aware that the unit was established to serve the school community, aware that users do not pay money to use the school digital library. It is in line with Araba and Michelle (2009) not only that content is put within the research of a user, but also more tools and services are put directly in the hands of the user. Which include the abilities to search, refer, validate, integrate, create, customize, publish, share, notify and collaborate.

4.2. Research Question Two: To what extent do *Psychology* students utilize digital library services in tertiary institutions in Imo state?

Table 2: Mean of standard duration on utilization of digital library services.

S/N	MEAN	SD	DECISION
5.	3.4	0.1	Accepted
6.	3.3	0.1	Accepted
7.	3.4	0.1	Accepted
8.	3.3	0.1	Accepted
9.	3.4	1.0	Accepted
10.	3.3	1.0	Accepted
11.	3.3	1.0	Accepted

Grand mean 3.2

Results in Table 2 shows that all the items scored above 2.50. This implies that *Psychology* students utilize digital library services in tertiary institutions in Imo State.

4.3. Research Questions Three: *Psychology* Students' perception towards utilization of digital library services in tertiary institutions.

Table 3: Mean and standard duration on *Psychology* students' perception on utilization of digital library services.

S/N	MEAN	SD	DECISION
12.	3.0	0.5	Accepted
13.	3.4	1.0	Accepted
14.	3.4	1.0	Accepted
15.	3.3	1.0	Accepted
16.	3.3	1.0	Accepted
17.	3.4	1.0	Accepted

Grand mean 2.9

Results in Table three show that all the items scored above 2.50. this implies that *Psychology* students show positive perception towards utilization of digital library services in tertiary institutions.

In Table 2 the respondents accepted the item statements which implies that they use digital library as often as they can, the school digital library is always filed by students, students do not seek help to use the digital unit, their assignments are most times done in the digital library, they use digital library to process and send results The cluster mean of 3.2 indicates the significance of items as all the mean scores are greater than the expected mean of 2.5. The result is line with Araba and Michelle (2009) not only that content is put within the research of a user, but also more tools and services are put directly in the hands of the user. Which include the abilities to search, refer, validate, integrate, create, customize, publish, share, notify and collaborate.

5.0. CONCLUSION AND RECOMMENDATIONS

5.1. Summary of Findings

This study investigated utilization of digital library in selected tertiary institutions. The study was delimited to IMSU and A.I.F.C.E libraries. This study grew out of the speculation that *Psychology* students have poor attitude to the use of library. Seeing the library as more stressful than what it seems to be. Hence the researcher designed five research questions to guide the study. The research design was descriptive study carried out in IMSU and A.I.F.C.E in Imo State. 230 sample sizes were drawn from 20% of the population of 1,246 *Psychology* students through simple random sampling technique. A 29 item titled Digital Library Services Utilization Questionnaire (DLSUQ) for Psychology students in selected academic library in Imo State. Results were generated, interpreted and discussed. Presentable recommendations were made

The following were gathered as findings

1. Both AIFCE and IMSU functional level of digital library is fair. They open for everyday reading .it serves as resources centre, provides variety of information, enable research environment, as ICT centre.
2. Some *Psychology* students are aware of the existence of digital library services in their institutions.
3. Most *Psychology* students utilize digital library services in tertiary institutions. Hence, they use the digital library often, the digital unit is always filled by users, *Psychology* students use the digital facilities without assistance, they do most of their assignments with the school digital library, they are proficient in the input and output devices in the digital library, they have some understanding of the nature and operations of digital library, they utilize digital library tools to process and send results
4. *Psychology* Students perceive digital library as easy to utilize, make learning easy, and understand their lesson better with digital library, confidence in utilizing digital library input and output, helps to investigate different problems and solve theirs, help to interact with lecturer and classmate through digital library.

5.2. Recommendation

Based on the findings of this study, the following recommendations were made;

1. Academic libraries should constitute awareness campaign and pro- active strategies to ensure that member of the school community are aware of the existence and functions of digital library.
2. The school authorities should provide funds and aids to enhance the facilities in the institutions digital libraries.

3. *Psychology* Students should form the habit of making effective use of digital libraries for their leisure and academic works.

4. The school management should ensure there is constant power supply, enough computers and other logistics required to make the digital library function well.

5. The school management should endeavor to train and re-train librarians on ICT so as to effectively function well in the digital service

Competing Interest

The authors declare that no competing interest exist in this paper.

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