

Digital Library as a Double-Edged Sword: A Case Study of Federal University Wukari

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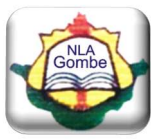
Abstract

This study looks at digital library as a doubled-edged sword. In sourcing or gathering information for this study, documented sources and questionnaire were both used to source information and arrive at findings respectively. Data were collected with the aid of questionnaire using a descriptive analysis using tables and employing simple percentages at arriving at findings. Findings indicated that the automation, digitization and effective social media platforms can enhance access, retrieval and effective dissemination of information. The findings revealed the following. 40% of the respondents agreed that the library is fully automated and its resources adequately digitized while 10% disagreed that the library is not fully automated and its resources are not digitized. It therefore shows that the library is not fully automated and its resources are not adequately digitized. This study recommends full automation of the library, adequate digitization, provision of social media platforms that can encourage academic performance of students, provision of e-books, e-journal etc. to complement print resources, recruitment of staff with relevant know-how, orientation of user on the positive use of internet services, adequate provision of electricity supply and adequate provision of funds.

Key words: Digitization, Automation, Library resources

Introduction

The main purpose of a university library is to support the objectives of a university, which are in the areas of learning, teaching and research and community service Gani, (2014). The library is regarded as the heart of the intellectual system of the institution. To a large extent, the quality of the institution is measured by the services provided by the library because of its unique position in the over-all system. Library has been describing as an organized institution which provides community of users with access to quality and timely information Burekland, (2012). Libraries are saddled with the responsibility of providing information resources and in different format (print and non-print) to users through the process of acquiring such resources and processing them for effective and efficient dissemination. Most libraries are traditional (manual) in their mode of operation. That is, large amount of their resources are printed, bulky and expensive.

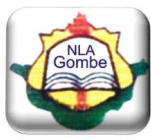


This method of handling information resources made identification, access and retrieval of information time consuming, tiring and cumbersome. Information seekers are therefore no longer satisfied with only printed materials. However, the advent of information communication technology (ICT) has been responsible for how people communicate, locate, retrieve and use information. Digital information technologies are replacing printed word and in the process, are transforming our profession and our world Kamba, (2011) Information communication technology avails libraries the opportunity to provide value added services as well as making available and accessible digitized resources to actual and potential users. Electronic resources deliver the collection of information as full text (aggregated) databases, e-journals, image collections, multimedia in the form of CD, tape, internet, web technology, etc. E-resources include e-journals, e-discussions, e-news, data archives, e-mail online chatting and many others. Electronic information sources are a wide range of products going from electronic periodicals to CD-ROMs, from mailing list to databases, all of them having a common feature of being used and sometime modified by a computer (Thanuskodi, 2012).

In the quest to enhance easy access and retrieval, increase availability, wider coverage, provision of relevant and appropriate information resources, libraries and information centers have over the years embraced information communication technology (ICT) so as to enhance service delivery. Thus, digital library may be perceived as an information service or a collection of electronic resources in which all the information resources are available in computer processable form. Akpojotor. (2016). Digital library is a library whose collection and services are in a digital form and /or accessed digitally. The collection could be either born digital (created in a digital form originally), or scanned or otherwise copied from a physical artifact. Gani and Magoi, (2014) describes digital library as library in which collections are stored in digital formats (as opposed to print, microform or other (media) and accessible by computer.

A digital library is accessible electronically to a large group of people. New technologies are invaluable tools for enhancing the educational experience, but they are indeed double-edged sword. Internet has become a true component part of the process of education in many countries in Europe. This global computer network has brought us many types of applications of computer technology suitable for learning. Digital libraries put a world of information at your fingers. Manoi, (2017) stressed that digitization enhances the visibility of a library globally because materials digitized can easily be assessed by other libraries and research institution once the compatibility infrastructures such as relevant hardware, and internet connectivity are put in place. Li and Furht, (2019). looks at digital library as “a library in which collections are stored in digital formats (as opposed to print, microform, or other (media) and accessible by computers. Libraries provide information service to diverse users through acquisition, processing and dissemination of knowledge products in various formats such as print and non-print.

However, the advent of information and communication technology has changed the traditional way of library and information services such that libraries have transformed into digital and virtual libraries where books, journals and magazines have changed into e-book, e-journals and e-magazines. Johann, (2016). Internet is creating new communities by changing forever the way we work together, teach and learn, talk to each other, as well as find, use, create and share information. In this sense, a digital library is really a resource environment, accessible through one own computer or available through computing tools in building in campus. Rapid advances information technologies have revolutionized the role libraries face new challenges, competitors, demands, and expectations. Libraries are redesigning services and information



products to add value to their services and to satisfy the changing information needs of the user community.

Why Digital Libraries

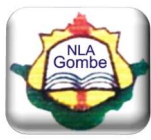
Libraries are live organization, so consideration of future needs for organize and manage the ever-growing size of library collections which varied in nature, the services and the users. Future thinking is very important as the fifth law of library science stated by Ranganathan, (1999), “Libraries are growing organisms”, the libraries are facing the dual challenge of accommodating rapidly changing populations and keeping pace with information and communication technology therefore, Digital Libraries becomes necessary in the institutional system.

The African Information Initiative adopted the digital agenda in 1996 in order to transform stagnating African economies (ECA, 1996:9). In 2001, the 34th session of the Commission for Africa reaffirmed that ICTs were key to the economic and social development of the African continent (Ani and Edem 2012). Digital libraries are organizations that provide the resources, including specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time collections of digital works so that they are readily and economically available for use by a defined community or set of communities (Aydlogan, 2010; Digital Libraries Federation, 2012). The component characteristics of digital libraries are the storage of information in digital form, direct usage of communication networks for accessing, obtaining information, and copying by either downloading or online/offline printing from a master file. According to Gulbahar, al.tel (2010), traditional libraries, which were known as repositories of knowledge, have hence become accessible in database form; the Internet and the Web are making knowledge universal and linked internationally. In summary then, a digital library maintains all, or a substantial part, of its collection in computer-possible form as an alternative, supplement, or complement to the conventional printed and microfilm materials that currently dominate library collections.

Benefits of Digital Libraries

The benefits of digital libraries is a means of easily and rapidly accessing books, archives and images of various types. Although, both types of library require cataloging input to allow users to locate and retrieve material Jie and Bao-Zhong, (2012). Digital libraries may be more willing to adopt innovations in technology providing users with improvements in electronic and audio book technology as well as presenting new forms of communication such as wikis and blogs; conventional libraries may consider that providing online access to their OPAC catalog is sufficient. An important advantage to digital conversion is increased accessibility to users. They also increase availability to individuals who may not be traditional patrons of a library, due to geographic location or organizational affiliation. Trivedi, (2010). Digital libraries bring significant benefits to the users through the following features:

- i. Improved access:** Digital libraries are typically accessed through the Internet and Compact Disc-Read Only Memory (CD-ROM). They can be accessed virtually from anywhere and at any time. They are not tied to the physical location and operating hours of traditional library.
- ii. Wider access:** A digital library can meet simultaneous access requests for a document by easily creating multiple instances or copies of the requested document. It can also meet the requirements of a larger population of users easily.



iii. Improved information sharing: Through the appropriate metadata and information exchange protocols, the digital libraries can easily share information with other similar digital libraries and provide enhanced access to users.

iv. Improved preservation: Since the electronic documents are not prone to physical wear and tear, their exact copies can easily be made, the digital libraries facilitate preservation of special and rare documents and artifacts by providing access to digital versions of these entities.

Functional Components of Digital Library

The development of Digital libraries are logical extension of traditional libraries, therefore, the development of digital libraries should be grounded by understand the components and interactions among these components to ensure quality and reliability of the digital contents also to assist users. Li and Furht, (2014). Stated that, most digital libraries share common functional components. These includes:

i. Selection and acquisition: The typical processes covered in this component include the selection of documents to be added, the subscription of database and the digitization or conversion of documents to an appropriate digital form.

ii. Organization: The key process involved in this component is the assignment of the metadata (bibliographic information) to each document being added to the collection.

iii. Indexing and storage: This component carries out the indexing and storage of documents and metadata for efficient search and retrieval.

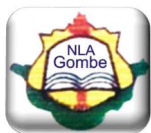
iv. Search and retrieval: This is the digital library interface used by the end users to browse, search, retrieve and view the contents of the digital library. It is typically presented to the users as Hyper-Text Mark-up Language (HTML) page.

Challenges and Opportunities

In this era, opportunities in education are available like never before. Though teachers using online tools are enabling students take part in their education, they may also show them to unsuitable material, sexual predators, bullying and harassment by peers. Some of challenges and opportunities for use the social networking sites in education. Aydogan, and Akyus (2010) and Gubahar, el. tal (2010). There are many challenges facing the use of social networking in education such as privacy, taking up time and miscommunication (<http://socialnetworkingeducation.wikia.com>).

• Privacy

Nowadays, the social-networking sites such as Facebook and Twitter are open for anyone who wants to participate. However, researchers have studied in relationship between privacy concerns and online behavior. Studies have shown that users will express very powerful concerns about privacy of their personal information, but be less than vigilant about safeguarding it. Although a lot of the information individuals' supply on social-networking sites is elective, users are progressively more comfortable with displaying a great deal of personal information online. Therefore, one of the main concerns for users who register in these sites is privacy. How private is the information that users place on social networking? Who has access to the information and what is it used for? Whose role is it- parent, student, educator and website developer to ensure an individual understands his right to privacy and exercises it



accordingly? Everyone asks himself these questions. So, the privacy is one of the obstacles that have faced the use of social networking in education.

- **Real friendship**

Through social networking, person has a lot of friend but the quality and integrity of these friendships is not always true. On the other hand, data on these social-networking sites for a person is not always 100% honest and reliable, and they do not verify personal details (age, location, etc.) of their members. While sites provide an opportunity for individuals to present a positive and accurate self-image, there is an equal potential to abuse this openness. So, having many friends through social networking sites is likely to be more harmful than good. This will affect the use of social networking in education

- **Taking up time**

The study which was conducted by the site www.azureim.com showed the amount of time spent by individuals with each other online. This has effect on health of individuals, because spending a lot of time browsing these social networks can affect the way the genes operate within the human body, and weakens the immune and hormone levels, and function of arteries. In addition, it is also has an impact on mental health. Moreover, the use of social networking in the education can cause lack of motivation towards learning and can be boring sitting in front of computer for a long time, especially if the scientific material presented is free of audio and visual effects that will attract learner towards learning.

- **Miscommunication**

E-Learning does not afford the student with the same opportunities of explanation and clarification that occur in face-to-face interaction. Learners face some difficulty through social networking in expressing their views and ideas in writing, as many learners prefer to express their ideas orally which is approach they have used for many years through their study, While e-education users need to be acquire to writing skills to express their ideas and opinions freely. Face to face allows individuals to perceive physical clues like tone, inflection, body language, in an online environment, these are lacking.

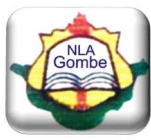
Opportunities to Use Social Networking in Education

In the field of education, social-networking sites offer a student the opportunity to connect with other students, educators, administrators, alumni, both within and outside his current institution. Scholars praise social-networking tools for their capability to attract, motivate and engage students in meaningful communicative practice, content exchange, and collaboration. There are some of opportunities in the use social networking in education I will mention some of them.

- **Flexibility**

“Flexible learning expands choice on what, when, where and how people learn. It supports different styles of learning, including e-learning. Flexibility means anticipating, and responding to, the ever-changing needs and expectations of Vocational Education and Training clients - enterprises learners and communities". Flexibility is one of the most attractive elements of online learning in social networking. Blended approaches that combine face-to-face and online learning are preferable to an online pedagogy alone. Face-to face classes are likely to enable high levels of emotional understanding, while the convenience and flexibility of online components can motivate students to complete educational tasks.

It contributes to the different perspectives of the students, forums such as chat rooms that exist in social networking provide opportunities to exchange views on topics, which increases the



opportunities to take advantage of views and proposals and their integration with the views of the student, and helps in the formation of a solid foundation for students in their knowledge purpose.

The education theories confirm that human interaction is a vital element in the learning process. It should be noted that social networking provides participation through such virtual classrooms, chat rooms and meetings by video.

- **Repeatable**

Remember information depends on all of our sensory, while the response depends on the features of individual and the motivation to learn. So, it must be therefore provided a way that has offered for a learner the possibility of repetition, which is rarely offered by traditional educational methods. The social networking has offered this way through their sites and gives the opportunity for learners to retrieve the information immediately or later.

- **Convenience and accessibility**

The social networking is easy and quick in term of accessing accessibility, reviewing, updating, and editing learning material needs anytime and anywhere. In addition, it allows for option to select learning materials from large quantity of courses offered online which the learner needs and it also makes easier distribution of courses material.

The social networking helps to reduce stress and increase satisfaction among students. It allows each student (slow or quick) to study at their own pace and speed (self-pacing). Furthermore, it is easy to join bulletin board discussion any time, or visiting classmates and instructors remotely in chat room.

It can provide stronger understanding and increase retention on the subject, due to using many elements which exist under e-learning, e.g. multimedia, quizzes, interaction ... etc. and the ability to retry training and over in order to understand.

The social networking allows access to courses available in their sites, allowing the learner to follow-up online at any time it deems appropriate, and overcome the limitations of space and time in the educational process. As a result, it helps resolve timetable conflicts.

Research Objectives

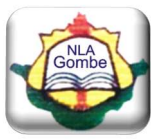
This study seeks to achieve the following objectives;

1. To determine whether the library (Federal University Wukari Library) is fully automated and its resources adequately digitized.
2. To assess the effectiveness of the digital library in terms of access, coverage and frequency.
3. To ascertain whether the digital library provide a dedicated social media platform to aid effective academic and social interactions
4. To determine whether digital library discourages the use of print resources as a result of access to internet provision.
5. To determine whether the digital library services a distraction as a result of social media interactions.

Research Questions

This study is designed to address these questions:

1. Is the (Federal University Wukari Library) library fully automated and its resources adequately digitized?



2. Is the digital library effective in terms of ease of access, coverage and frequency?
3. Does the digital library provide a dedicated social media platform to aid academic and social interactions?
4. Does digital library discourage the effective use of print resources as a result of access to internet provision?
5. Is the digital library internet service a distraction as a result of social media interactions?

Methodology

This research work employed descriptive survey design for the study. Questionnaire and documented sources were the instruments adopted and the data collected were analyzed using frequencies and simple percentage. A total of 120 questionnaires were distributed to students from all the departments in the three faculties Faculty of Humanities, Management and Social Sciences (HMSS), Faculty of Pure and Applied Sciences (PAS) and Faculty of Agriculture and Life Sciences (ALS) of Federal University Wukari, Taraba State.

Findings

Table 1: Which among is your faculty?

Responses	Frequencies	Percentages
ALS	40	33.3%
PAS	30	25%
HMSS	50	41.7%
Total	120	100%

Table 1 above shows that 40 representing 33.3% of the respondents are Faculty of Agriculture and Life Sciences students and 30 making 25% of the respondents are Faculty of Pure and Applied Sciences students while 50 representing 41.7% of the respondents are Faculty of Humanities, Management and Social Sciences students.

Table 2: Is the library fully automated and its resources adequately digitized?

Responses	Frequencies	Percentages
Yes	48	40%
No	72	60%
Total	120	100%

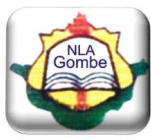
Table 2 above shows that 48 representing 40% of the respondents agreed that the library is fully automated and its resources adequately digitized While 72 making 60% of the respondents disagreed that the library is fully automated and its resources adequately digitized.

Table 3: Is the digital library effective in terms of ease of access, coverage and frequency?

Responses	Frequencies	Percentages
Yes	36	30%
No	84	70%
Total	120	100%

Table 3 shows that 36 representing 30% of the respondents agreed that the digital library is effective in term of ease of access, wide coverage and frequent in its mode of operation. While 84 representing 70% of the respondents disagreed with ease of access, wider coverage and frequent service delivery by the library.

Table 4: Does the digital library provide a dedicated social media platform to aid academic and social interactions?



Responses	Frequencies	Percentages
Yes	39	32.5%
No	81	67.5%
Total	120	100%

Table 3 shows that 39 representing 32.5 of the respondents agree that the digital library provide a dedicated social media platform for effective academic and social interactions. While 81 representing 67.5% disagree that the digital library provide a dedicated social media platform for effective academic and social interactions

Table 5: Does the digital library discourage the effective use of print resources as a result of access to internet provision?

Responses	Frequencies	Percentages
Yes	81	67.5%
No	39	32.5%
Total	120	100%

Table 5 above indicates that 81 representing 67.5% of the respondents said digital library discourages effective use of print resources as a result of access to internet provision. While 39 representing 32.5% admitted that digital library does not discourage effective use of print resources as a result of access to internet provision.

Table 6: Is the digital library internet services a distraction as a result of social media interactions?

Responses	Frequencies	Percentages
Yes	75	62.5%
No	45	37.5%
Total	120	100%

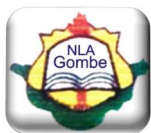
Table 6 reveals that 75 representing 62.5 of the respondents believed that digital library internet services a distraction as a result of social media interactions. While 45 representing 37.5% of the respondents refuted that the digital library internet services is a distraction as a result of social media interactions.

Discursion on Findings

The rapid advance in information technologies have revolutionized the role of libraries. As libraries face new challenges, competitors, demands and expectations, libraries have to redesigning services and information products to add value to their services and satisfy their needs of their users. Nevertheless, the findings of study revealed that the digital library in (Federal University Wukari Library) is not fully automated and its resources are not adequately digitized to meet adequate information needs. Full automation, digitization of resources, the provision of social media platforms and orientation of users on the use of internet services can enhance quick and easy access and retrieval, coverage, frequency and effective dissemination of information. Although the traditional library may not be completely replaced by digital library, there is the need for a 21st century library to adopt digital library in as much as electronic information sources are becoming more and more important to the academic community.

The findings from the study reveal thus:

- i. The Federal University Wukari Library is automated



- ii. The digital library is not effective in terms of ease of access, coverage and frequency.
- iii. The digital library does not have a dedicated social media platform to aid academic and social media interactions.
- iv. The digital library discourages effective use of print resources as a result of access to internet provision.
- v. The digital library internet service is distraction as a result of social media interactions.

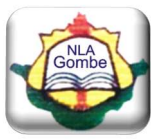
Conclusion

University Libraries serve at least three roles in learning. First, they serve a practical role in sharing information resources. Physical resources such as books and periodicals, also films and videos, software and electronic databases, and specialized tools such as projectors, graphics equipment and cameras are shared by a community of users. Librarians support instructional programs by responding to the high requests of teachers and students and by initiating activities for teachers and students. Therefore, the evolution of digital library in the library, information management and services have come to stay and libraries around the world have been working to globalize information services such that user' needs are met without physical presence in the library. Although, there are daunting set of challenges associated with setting up and managing digital library, the advantages far more outweigh the challenges. Among the challenges, libraries will need to face is the acceptance, implementation even the embrace of services and publicly available information resources that are far beyond what any individual library could provide. The practice of digital librarianship in many different ways and in many different places is exciting now and will be even more so in the future by embracing digital library services (Automation and Digitization of library resources) in an academic system.

Recommendations

In spite of efforts put in place by the Federal University Digital Library (E-Library) to ensure that the library meets diverse needs of its clientele by automating the library and making sure that its resources are in electronic format, a lot still needs to be done. Thus, this study recommends the followings:

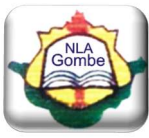
- i. Automation and digitization of the library and its resources are key to easy access and retrieval of the library resources.
- ii. To enhance access, coverage and frequency, the library must be adequately funded to automate, digitize and provide frequent services to users.
- iii. The library must develop social media platforms that will enhance both academic and social interactions among the users so as to meet the information needs of users adequately.
- iv. With the advent of information technology, attention has been drifted to electronic (non-print) resources as against print and they must provide adequate digitized resources to meet needs of new readership. Electronic resources such as e-books, e-journals etc. that are relevant for effective academic performance.
- v. In as much as the library provides internet services to the users, social media platforms that can enhance academic as well as positive social media should be developed to ensure optimum use of library resources and prevent distractions.
- vi. Adequate provision of fund can ensure full automation and adequate digitization of information resources which will improve access, coverage and frequency. This will in turn provide round the clock (24 hours) services users seek.
- vii. Recruitment of staff with expertise in the area of information technology will ensure proper automation and digitization of the library resources.



- viii. Users should be oriented on the positive use of available internet service for effective and efficient academic performance and not for social media interactions and destructive tendencies.

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