

Library Resources' Digitization and Its Impact on the Services of Academic Libraries: The Case of John Harris Library, University of Benin

Toyo, Oghenevwogaga David

Department of Library and Information Science,
Delta State University, Abraka,
Delta State, Nigeria

toyoooghenevwogaga@gmail.com, davidtoyo2014@gmail.com

Abstract

This research investigated the impacts of library resources digitization on the services of academic libraries using John Harris Library, University of Benin, Benin City. As part of the study, research questions were formulated so as to achieve the aim and specific objectives of the study; also various literatures of scholars and authors in the field were reviewed. In order to achieve the purpose and objectives of this study, questionnaire was designed to elicit information from the respondents. The sample size for the study was forty-seven (47) library staff (professional and para-professional) which is 100% of the total population. After the total collection of data, critical analysis of the study was carried out and the major findings revealed the following: the major reasons for the digitization of library resources at John Harris Library include the need to preserve library resources for long use and to have better search and retrieval facilities for library materials; that the main benefits of digitizing library resources are that digitization enables greater access to collections of all types and give the ability to search for library resources electronically without difficulties among others; that the impacts of digitized library resources on the services of academic libraries include helping to offer more online services to library users and providing quick and easy methods of delivering services to them and that there are many challenges facing digitization of library resources in academic libraries. These include deterioration of digital media, funding, inadequate technology infrastructures, technological obsolescence and constantly changing hardware and software amongst others. Finally, the study was concluded that despite the tremendous benefits accrued to digitization, both to library staff and users as well as library services, the challenges facing digitization processes in academic libraries makes it a discouraging process.

Keywords: *Library resources, digitization, ICT, services, academic libraries*

INTRODUCTION

The traditional role of the library as simply a place of storage and preservation of books and other information materials has changed overwhelmingly since the advent of information and communication technologies (ICTs). Academic libraries are duly bound to acquire, preserve and disseminate information for whatever source, hence there is the need for such sources of information to be kept preserved and made available in a more convenient and accessible format. This however calls for digitization which is the process of converting analog (print, caving, artifacts and so on) materials to digital/electronic format (Otubelu & Ume, 2015).

Ndor (2007) sees digitization in his own passion as turning information into binary digits. According to Ndor, it is the process of translating a piece of information such as books, sound recording, picture or video into bits. Gbaje (2007) asserted that digitization

could be viewed as the process of converting non-digital born documents into digital format which includes selection of collection/material, imaging or scanning, transcribing, creating markup and index, creating metadata, processing images, uploading to the web, preserving and maintaining archival media.

Digitization of library resources is the process of converting analogue information to a digital format (Feather & Sturges, 2003). According to Feather and Sturges, it is one of the newest methods of managing information resources in the new information age, whereby information technology has assisted in making information accessible to people even in their homes. Traditional library materials in the form of books, papers, manuscripts, documents, etc. are converted into electronic formats; images (such as photographs or maps) are converted into digital representations using some type of scanning device (or digitizer) so that they can be displayed and manipulated on a screen.

Digital institutional resources such as these, manuscripts, special monographs, research papers, or images are of very high value to academic institutions. Cooperation, automation and building of the digital library - all for the enhancement of service delivery in support of teaching and research - are the principal drivers that will shape the collective future of libraries as suppliers of information to the scholarly world (Carr, 2000).

Digitization being one of the important aspects of current global information trends fit into the library and information services for effective information dissemination, preservation of information resources and facilitating the integration of library services into the learning process of academic institution (Otubelu & Ume, 2015). It also makes library resources available electronically, users can access the library digitized resources from their offices and halls of residence even when the library is physically closed. Also, as many people as possible can gain access to as much material as needed at any given time, a difficult situation with a text resource (Ezeani & Ezema, 2011).

According to Pandey and Misra (2014), the main aim of digitizing library materials is for preservation and easy access by any user or researcher. Pandey and Misra maintained that digitization improves access to library resources and by digitizing library collections; information will be accessible to all instead of a group of researchers. Digital projects allow users to search for collections rapidly and comprehensively from anywhere at any time. Digitization makes the invisible to be visible. Several users can access the same material the same time without hindrance. It also removes the problem of distance, as users do not have to travel to libraries that possess the hard copies of library materials before they can access and use such materials (Fabunmi, Paris & Fabunmi, 2006).

Otubelu and Ume (2015) posited that the obvious benefit of digitization is that it enables greater access to collections of all types. According to them, digital materials can be made available to a broader audience than those who have the resources or ability to travel to see the analogue collections, and access can be expanded to non – traditional audiences such as lifelong learners.

More so, digitization of library resources poses a great deal of challenge to the major stakeholders, that is, the library management, employees and library users. Despite everything that digitization can accomplish, there are some good reasons librarians and archivists in developing countries may regret embarking on such project (Pandey & Misra, 2014). Some of the challenges facing the successful digitization of library resources in academic environment, according to Pandey & Misra include constantly changing software and hardware, funding, technophobia, inadequate technology infrastructure, technical expertise amongst others.

Statement of the Problem

The world is fast changing; academic institutions are now responding to these global changes by adopting institutional digital repositories in their various institutions. Several studies (e.g. McKay, 2003; Ezeani & Ezema, 2011; Asogwa, 2011) have revealed numerous benefits attached to the digitization of library resources in academic libraries ranging from bringing prestige to the whole institution, creating visibility of the library's (institutions) content and scholars work within the university to raising the profile of an institution by showcasing digital collections which can be a useful public relations exercise. However, despite the tremendous benefits involved in digitization of information resources in academic institutions, yet, there are a lot of challenges bedeviling digitization exercise which include technological obsolescence / constant changing hardware and software, copyright issues, technical support and security, difficulty in digitizing some materials, unavailability of needed materials amongst others. Prompted by these challenges, thus, this research seeks to investigate the impact of library resources digitization on the services of academic libraries.

Objectives of the Study

The main purpose of this study is to investigate the impact of library resources digitization on the services of John Harris Library, University of Benin, Benin City. However, the specific objectives of the study are as follows:

- (i) To find out the reasons for the digitization of library resources in academic libraries;
- (ii) To reveal the benefits of the digitization of library resources in academic libraries;
- (iii) To assess the impacts of digitalized library resources on the services of academic libraries and
- (iv) To investigate the challenges facing the digitization of library resources in academic libraries.

Research Questions

The following research questions were raised to guide this study:

- (i) What are the reasons for the digitization of library resources in John Harris Library, University of Benin, Benin City?
- (ii) What are the benefits of the digitization of library resources in academic libraries?
- (iii) What are the impacts of digitalized library resources on the services of academic libraries?
- (iv) What are the challenges facing the digitization of library resources in academic libraries?

REVIEW OF RELATED LITERATURE

Reasons for Library Resources Digitization in Academic Libraries

The world is fast changing: academic libraries are now responding to these global changes by adopting digitization, digital library and institutional digital repositories in their various institutions. Digitization being one of the important aspects of current global information trends fit into the library and information services for effective information dissemination, preservation of information resources and facilitating the integration of library services into the learning process of academic institution (Otubelu & Ume, 2015). It also makes library's resources available electronically, users can access the library digitized resources from their offices and halls of residence even when the library is physically closed.

Most libraries are digitizing materials which might not be lost in the future, such as old manuscripts, research projects, photo images, analogue maps, non - live musical recordings, government official gazettes and several other historical records, making high quality digital unpagged available electronically will reduce wear and tear of fragile items.

Pinnell-Stephens (2005) reported the digitization of two oral history resources in Alaska, USA to ensure preservation and greater access.

Liu (2004) reported that libraries usually digitize the archive of newspapers, artifacts, maps, coins, art, music, children's literature, historical records and images of international and cultural interests such digital collections will allow the public researchers to view, read and hear the photographs, speeches and documents. The search mechanisms for information in the traditional library set-up are very slow and inefficient. This makes accessing materials in these libraries to necessitate physical contact by users. If these libraries become digitized, such library resources can be accessed online without stress. Digitization improves access to library resources. Digital projects allow users to search for collections rapidly and comprehensively from anywhere at any time. Users can access the same material at the same time without hindrance. It also removes the problem of distance, as user do not have to travel to libraries that posse the hard copies of library materials before they can access and use such materials for learning, teaching and research works (Eke, 2011).

However, the proliferation of electronic information; the dwindling budget for acquisition of library stocks; the desire to access materials in remote locations; the quest for collaboration, partnerships and resource sharing; and the ever increasing cost of preserving analogue materials, and so on are some of the forces that prompted digitization of archives and records (Pandey & Misra, 2014). The aim of digitizing library materials is for preservation and easy access by any user or researcher. Digitization improves access to library resources. By digitizing library collections, information will be accessible to all instead of a group of researchers.

Digital projects allow users to search for collections rapidly and comprehensively from anywhere at any time. Digitization makes the invisible to be visible. Several users can access the same material the same time without hindrance. It also removes the problem of distance, as users do not have to travel to libraries that possess the hard copies of library materials before they can access and use such materials (Fabunmi, Paris & Fabunmi, 2006). This entails that the digital library would be open at any time for consultation of materials. Materials uploaded on the website are always there for people to consult, except when erased by the website administrator. Library materials especially old manuscripts, photo images, theses, and musical recordings etc that are in danger of being lost in the future and which are mostly historical and valuable needs to be preserved for future use.

There are different purposes for digitization. Stefano (2001) highlighted that one of the advantages of digitization is the ability to search for an item electronically. It is noted that rather than scan through table of contents in a book or newspaper, you can do a quick electronic search and find what you are looking for in seconds. It saves the time of researchers, students and corporations (Turock & Friedrich, 2010). This implies that a large number of users can access a single material at the same time. This also saves time and it goes in line with Ranganathan's fourth law of library science which states: "save the time of the reader".

Furthermore, digitization also helps to reduce handling and use of fragile documents. Old theses such as theses of the university's first graduates of 1964 which have been steadily used for the past forty-five years have brown brittle. As these invaluable resources become old, they need less handling and an effective backup is established (Musa, 2012).

Academic libraries are digitizing materials because they know the continuing value of library resources for learning, teaching, research, scholarship, documentation, and public accountability (Mohammed, 2009). According to Otubelu and Ume (2015), the reasons for digitization of library materials in academic libraries include the following:

- (1) To preserve the age old materials for long use which are important and valuable for future.

- (2) To facilitate new forms of access and use.
- (3) Better and enhanced access to a defined stock of research material
- (4) Creation of a single point of access to documentation from different institutions concerning a special subject.
- (5) Support for democratic considerations by making public records more widely accessible.
- (6) Better search and retrieval facilities for library types of materials.
- (7) To give the institution opportunities for the development of its technical infrastructure and staff skill capacity.

Moreover, Pandey and Misra (2014) in their article highlighted three main reasons for the digitization endeavors in any library and these include the need to preserve endangered library resources, to improve the efficiency of information search mechanism and to improve access to library and other information-bearing resources.

Benefits of Library Resources Digitization in Academic Libraries

According to Otubelu and Ume (2015), the benefits of digitizing library resources can be summarized as access, support of preservation activities, collection development, institutional and strategies benefits, research and education. Thus, the obvious benefit of digitization is that it enables greater access to collections of all types. All manner of material can be digitized and delivered in electronic form. Digital materials can be made available to a broader audience than those who have the resources or ability to travel to see the analogue collections, and access can be expanded to non – traditional audiences such as lifelong learners (Otubelu & Ume, 2015).

Furthermore, Anunobi and Okoye (2008) in their opinions asserted that one major benefits of digitizing library resources can be recorded as institutional and strategic benefits. They opined that providing access to digitized collections can help publicize the materials to other departments and peers, in other institutions around the world and demonstrate the importance of the collections. According to Anunobi and Okoye, many funding opportunities are contingent on collaborations and partnerships between several institutions, so this can be an excellent opportunity to develop strategic liaisons with other institutions.

Also, Thata (2007), commenting on the advantages of digitization is of the view that digitization creates accessibility to research findings, improves access to research works, reports and other intellectual content. According to Thata, digitization makes it easier for researchers to find and share the results of research, through free and unrestricted online availability and provide reliable long term access to managed digital resources to its designated community, now and in the future in other to achieve optimum development goals in the institution.

More so, Musa (2012) opined that digitization improves access to library resources. According to him, providing access to digitized collections can help publicize the materials to other departments and peers, in other institutions around the world and demonstrate the importance of the collections. The result from the survey carried out in Kashim Ibrahim Library, Ahmadu Bello University, Zaria revealed that by digitizing information resources in academic libraries, raises the profile of the library and the institution to the top ranks of institutional repositories. The digitization of priceless and valuable collections of the institution brings prestige to the whole institution as it creates visibility not only of the library's (institutions) content, but the scholars work within the higher institution of learning (Musa, 2012).

However, Silkroad (2013), in his article stated that one of the advantages of digitization can be observed in the ability to search for library resources electronically without difficulties. He further noted that rather than scan through table of contents in a book

or newspaper, a library user can do a quick electronic search and find what he/she is looking for in seconds. In essence, it saves the time of researchers, students and corporations (Silkroad, 2013).

Pandey and Misra (2014), supporting Silkroad's statement maintained that digitization of library resources implies that a large number of library users can access a single material at the same time. They noted that this also saves time and goes in line with Ranganathan's fourth law of library science which emphasizes on saving the time of the reader. Hence, digitization also helps to reduce handling and use of fragile documents (Pandey & Misra, 2014).

However, Cullen and Chawner (2008) postulated that reasons for going digital in academic libraries vary, and a range of projected benefits has been suggested. These include benefits to the researcher, to the institution, and to individual disciplines. Academic libraries also benefit from being involved in digitization of their resources, and there are implications for scholarly communication overall. As a result, their reputation will be enhanced over the long term, due to the recognition they gain from this (Cullen & Chawner, 2008). Other benefits to researchers include stewardship and preservation of their publications in digital form, which frees them from the need to maintain this content on a personal computer or website.

Impacts of Digitalized Library Resources on the Services of Academic Libraries

Digital technology has revolutionized not only the way information is packaged, processed, stored and disseminated, but also how users seek and access information. Academic libraries no longer restrict themselves to print services such as collection development, cataloguing and classification, circulation and reference services, current awareness, selective dissemination, and other bibliographic service, but have extended their effort to interdisciplinary concepts and computer software and hardware and telecommunication engineering and technology (Otubelu & Ume, 2015).

As observed by Campbell (2006), numerous creative and useful services have evolved with academic libraries in the digital age: providing quality learning spaces, creating metadata, offering virtual reference services, teaching information literacy, choosing resources and managing resource licenses, collecting and digitizing archival materials, and maintaining digital repositories. According to Campbell, academic libraries presently are faced with not only the decision on what books and journals to acquire to satisfy faculty and students but also on how to remain relevant in the digital era by equipping themselves of the right digital skills to render quality library services.

Lombardi (2010) maintained that users will prefer more computer content, more and more computer indices, digitized finding aids, digital repositories of articles, online access to newspapers amongst others in a digital environment. Lombardi further noted that the consequence of this is the repositioning of academic libraries resources, operations, services and skills. According to him, resources today occur in hybridized form: print and electronic, and as such, services provided and skills possessed by library professionals in academic libraries should reflect that trend.

However, digitization being one of the important aspects of current global information trends fit into the library and information services for effective information dissemination, preservation of information resources and facilitating the integration of library services into the learning process of academic institution (Musa, 2012). Although, Fabunmi, Paris and Fabunmi (2006) had earlier posited that as the manual system of searching for information and materials in the traditional library does not permit multiple use of the same material by different library users unlike the online library system, the need to exploit the advantages of the digital library which enables a library to provide online services become paramount.

Challenges facing Library Resources Digitization in Academic Libraries

The management of digital assets presents new challenges to the academic library community in terms of administering complex hardware and software, but mass digitization has not changed the fundamentals of library services. The ephemeral nature of digital items will require more expense and staff attention in meeting preservation commitments, but the relationship of user needs to item selection and organization remains essential (Pandey & Misra, 2014).

The complexities involved in supervising intricate information systems optimized to meet specialized user needs requires a strategic approach to management that takes into account the role of digitized collections within the larger context of the library and parent organization (Currall & Moss, 2010). Guiding users to the items most suited to their information needs becomes a very different task as service points become more remote, but the digital environment brings with it increased possibilities to meet the traditional goal of providing personalized services to every user (Turock & Friedrich, 2010).

However, digitization of library resources poses a great deal of challenge to the major stakeholders, that is, the library management, employees and library users. Despite everything that digitization can accomplish, there are some good reasons librarians and archivists in developing countries may regret embarking on such project. Not everything in the collection is worthy of digitizing because the idea of an entire archives or library being digitized is a long way process (Pandey & Misra, 2014).

However, despite the tremendous benefits involved in the digitization of information resources in academic libraries, yet, there are a lot of challenges bedeviling digitization exercise. These challenges, according to Pandey & Misra (2014) include:

(A) Legal Aspects

This is related to intellectual property rights. A major challenge for digital libraries is complying with copyright, intellectual property rights and related issues like plagiarism (Warwick, Terras, Galina, Huntington & Pappa, 2008). This is an aspect where librarians and researchers need to take precaution. There is an increasing unease among members of the library community that copyright changes will adversely affect the ability of libraries to provide digital collections and services. If libraries do begin to systematically collect digital information on a larger scale, the provision of effective access could be questionable.

In fact, copyright could end up preventing libraries from providing open access to the digital information they collect. Questions of copyright must be managed so that digital information can be created and distributed throughout "digital libraries" in a manner that is equitable for both in information producers and information customers. Copyright could become an insurmountable barrier to the development of digital collections (Kuny & Cleveland, 2014).

(B) Constantly Changing Software and Hardware

This creates greater pressure on archival institutions because preservation of digital archival collections centers on the interim mechanism for storing the digital information, migrating to new form and providing long-term access (Pandey & Misra, 2014). One of the greatest issues facing the longevity of digital collections is not only the storage media deterioration, but the problem of rapidly changing storage devices. Unlike analogue information which places emphasis on the preservation of physical artifacts, it is the informational contents of the digitized material that is preserved. It will therefore take a conscious effort of archivists to make sure that the digital information is preserved since continuously change software and hardware creates headache for staff working on digital longevity (Besser, 1999).

(C) Funding

Digital projects are expensive. Digitization of archival/library automation requires enormous funding due to frequent hardware and software upgrades, and increasing cost of subscription to electronic databases. Apart from inadequate fund to train archivists in Africa, training of archivists in digitization and preservation of electronic format creates a herculean problem. A well-funded digitization project assures new and improved services and sustainability of the project.

(D) Technophobia

Due to inadequate skills in information technology, many traditional librarians and archivists are conservatives and have phobia for computers. Because of generation gaps between the new and old professionals, computers are perceived as a threat to their status as experts. Thus, they find it difficult to cope or measure up with the requirements of the electronic/digital age, and are at the same time 'too reluctant to jettison the old practices for new one' (Ayoku, 2008). Successful application of information handling technologies requires an ability to overcome staff and personal resistance to such innovation.

(E) Technical Expertise

Inadequate technical expertise is prevalent in many developing countries. There is shortage of personnel/human capital. Few librarians with computer science qualifications (computer engineers) work in archives and libraries, hence the consequent frequent break down of ICT facilities and disruption of services in digitized libraries and archives. In many developing countries, human resources with appropriate skills, competences and attitude are not readily available to initiate, implement and sustain digitization project, and most African states are still lagging behind in technological and telecommunications infrastructure.

(F) Inadequate Technology Infrastructures

Frequent power outage constitute serious bottleneck to digitization in Africa. This has the effects in damaging digital equipment and where there is generating set the cost of running them is prohibitive.

(G) Technological Obsolescence

Digital archives should be transcribed every ten to twenty years to ensure that they will not become technologically obsolete (Alegbeleye, 2009). The continuous changes in computer hardware and software cause technological obsolescence which is a threat to digitization and digital preservation. It causes the loss of the means to access to information in digital form. Technological obsolescence is caused by continuous upgrade of operating system, programming language application and storage media.

(H) Deterioration of Digital Media

Deterioration of digital media is responsible for the disappearance of, or inaccessibility of digital information in the long run. This is because media deteriorates or decays within few years after digitization. Another challenge is that digital media get lost during disaster or virus attacks. The reason why re-digitization is inevitable is the likelihood that electronic resources created in previous years using older technologies may not be accessible or compatible with the new technologies (Hazen, Horrell & Merrill-Oldham, 2008; Hughes, 2010).

However, according to Eke (2011), security for digital information is a great challenge that demands attention. Piracy has been a great problem that needs a solution while

virus attack on the files and systems is posing a lot of threat to digital information resources in academic libraries.

RESEARCH METHOD

The unit of analysis is the academic library, with the professional and para-professional library staff in the Delta State University Library, Abraka as the key informant. The population for this study comprised of all the staff of the library investigated. There are twenty-five (25) professional and twenty-two (22) para-professional staff of different cadres. However, the sample size of the study is 47; hence, the simple random sampling technique was used.

In this research, a descriptive survey research design was adopted. Both primary and secondary data were used as a source of data for the research. The research instrument used for this study is the questionnaire. The questionnaire was titled “*Impact of Library Resources Digitization on the Services of Academic Libraries Questionnaire*” (ILIRDOSALIQ). The research instrument was validated by research experts in the Department of Library and Information Science, Delta State University, Abraka. The questionnaire was designed to encourage good response from the busy respondents. Multi-item scales were adopted from previous studies for the measurement of the constructs. It consisted of five (5) sections, scored on a 3-point Likert scale with an agree/disagree continuum (1 = Agree 2 = Disagreed, 3 = Undecided). The instrument was checked in terms of clarity of the instruction to the respondents, proper wording of items, appropriateness and adequacy of the items for the study.

Furthermore, the questionnaires were administered by the researcher with the assistance of trained research assistants. The research assistants were trained on the contents of the questionnaires and they were advised to follow up the distributed questionnaires for maximum returns. The questionnaires were administered within two days. The first day was used for the distribution of the questionnaires and the second day was used for the collection of the filled questionnaires from the respondents. Furthermore, in some cases, interviews were applied to complete questionnaires.

DATA ANALYSIS

In the analysis of data, the simple percentage formula was used and interpretation of findings was made.

Research Question One:

What are the reasons for the digitization of library resources in John Harris Library, University of Benin?

Table 1: Reasons for Library Resources Digitization

S/N	Reasons	Agree	%	Disagree	%	Undecided	%
1	To preserve library resources for long use	47	100%	0	0%	0	0%
2	To facilitate new forms of access and use	45	95.7%	0	0%	2	4.3%

3	Better and enhanced access to a defined stock of research materials	46	97.9%	0	0%	1	2.1%
4	Creation of a single point of access to documentation from different institutions concerning a special subject	41	87.3%	1	2.1%	5	10.6%
5	Better search and retrieval facilities for library materials	47	100%	0	0%	0	0%
6	Opportunities for the development of library technical infrastructure and staff skill capacity	46	97.9%	1	2.1%	0	0%

Source: Field survey, 2017

Table 1 discloses the reasons for the digitization of library resources in academic libraries. It is obvious that the major reasons for the digitization of library resources in academic libraries include the need to preserve library resources for long use and to have better search and retrieval facilities for library materials as agreed by all the 47 respondents representing 100%. Other reasons include better and enhanced access to a defined stock of research materials as agreed by 46 (97.9%) respondents, opportunities for the development of library technical infrastructure and staff skill capacity as agreed by another 46 (97.9%), to facilitate new forms of access and use as agreed by 45 (95.7%) respondents and creation of a single point of access to documentation from different institutions concerning a special subject was another reason as agreed by 41 (87.3%) of the respondents. This analysis supports the words of Pandey & Misra (2014) who posited that the proliferation of electronic information; the dwindling budget for acquisition of library stocks; the desire to access materials in remote locations; the quest for collaboration, partnerships and resource sharing; and the ever increasing cost of preserving analogue materials, and so on are some of the forces that prompted digitization of archives and records. However, Otubelu & Ume (2015) asserted likewise.

Research Question Two:

What are the benefits for the digitization of library resources in John Harris Library, University of Benin?

Table 2: Benefits for Library Resources Digitization

S/N	Benefits	Agree	%	Disagree	%	Undecided	%
1	It enables greater access to collections of all types.	47	100%	0	0%	0	0%

2	It raises the profile of the library and the institution.	43	91.5%	2	4.3%	2	4.3%
3	Ability to search for library resources electronically without difficulties.	47	100%	0	0%	0	0%
4	Opportunity to develop strategic liaisons with other institutions.	39	83%	2	4.3%	6	12.8%
5	It helps to publicize library information resources.	45	95.7%	0	0%	2	4.3%
6	Digitization helps to reduce handling and use of fragile documents.	46	97.9%	0	0%	1	2.1%
7	It helps to save the time of the library user.	46	97.9%	1	2.1%	0	0%

Source: Field survey, 2017

Table 2 reveals the various benefits of digitizing library resources in academic libraries. 47 (100%) and 47 (100%) of the respondents which represents majority agreed that the major benefits of digitizing library resources are that digitization enables greater access to collections of all types and give the ability to search for library resources electronically without difficulties respectively. Also, 46 (97.9%) and 46 (97.9%) of the respondents agreed that digitization helps to reduce handling and use of fragile documents and helps to save the time of the library users respectively. Thus, others benefits include helping to publicize library information resources as agreed by 45 (95.7%) of the respondents while 43 (91.5%) also agreed that digitization of library resources raises the profile of the library and the institution. Furthermore, 39 (83%) of the respondents agreed that digitization creates opportunity for academic libraries to develop strategic liaisons with other institutions. This finding is in line with Otubelu and Ume (2015) who affirmed that the benefits of digitizing library resources can be summarized as access, support of preservation activities, collection development, institutional and strategies benefits, research and education.

Research Question Three:

What are the impacts of digitalized library resources on the services of John Harris Library, University of Benin?

Table 3: Impact of Digitized Library Resources on Library Services

S/N	Impacts	Agree	%	Disagree	%	Undecided	%
1	Providing quality spaces for rendering services	38	80.9%	5	10.6%	4	8.5%
2	Enables the creation of metadata	37	78.7%	2	4.3%	8	17%
3	Helps in offering virtual reference services	46	97.9%	0	0%	1	2.1%
4	Digitization helps to offer more online services to users	47	100%	0	0%	0	0%
5	Facilitating integration of library services into learning process	46	97.9%	0	0%	1	2.1%
6	Quick and easy methods of delivering services to users	47	100%	0	0%	1	2.1%

Source: Field survey, 2017

Table 3 displays the impacts of digitizing library resources on the services of academic libraries. All the 47 respondents representing 100% affirmed that digitization helps to offer more online services to library users and provides quick and easy methods of delivering services to them. More so, 46 (97.9%) of the respondents agreed that digitization helps in offering virtual reference services, 46 (97.9%) respondents also agreed that it facilitates the integration of library services into the teaching - learning process of its parent institution, 38 (80.9%) agreed that it provides quality spaces for rendering services and 37 (78.7%) agreed that digitization enables the creation of metadata. This analysis corroborates the works of Campbell (2006) and Otubelu and Ume (2015) who asserted that numerous creative and useful services have evolved with academic libraries in the digital age ranging from offering virtual reference services to giving library staff room to equip themselves of the right digital skills to render quality library services.

Research Question Four:

What are the challenges facing the digitization of library resources in John Harris Library, University of Benin?

Table 4: Challenges of Library Resources Digitization

S/N	Challenges	Agree	%	Disagree	%	Undecided	%
1	Legal Aspects	23	48.9%	23	48.9%	1	2.1%
2	Constantly Changing Software and Hardware	40	85.1%	7	14.9%	0	0%
3	Funding	45	95.7%	2	4.3%	0	0%
4	Technophobia (Fear of Technology)	12	25.5%	31	66%	4	8.5%
5	Inadequate technical expertise	34	72.3%	6	12.8%	7	14.9%
6	Inadequate Technology Infrastructures	44	93.6%	3	6.4%	0	0%
7	Technological Obsolescence	41	87.2%	2	4.3%	4	8.5%
8	Deterioration of Digital Media	46	97.9%	0	0%	1	2.1%

Source: Field survey, 2017

Table 4 shows the challenges facing the digitization of library resources in John Harris Library, University of Benin. It is obvious that the major challenges as identified by the respondents are deterioration of digital media (as agreed by 97.9% of the respondents), funding (95.7%), inadequate technology infrastructures (93.6%), technological obsolescence (87.2%) and constantly changing hardware and software (85.1%). However, there was a 50 – 50 situation as to whether legal aspects posed as challenge to digitization of library resources as 23 (48.9%) respondents agreed and disagreed. Though, technophobia (fear of technology) was not seen as a major problem by 31 (66%) of the respondents. This analysis revealed that there are so many challenges facing the digitization of library resources in academic libraries which is in line with Pandey and Misra (2014) who posited that despite the tremendous benefits involved in the digitization of information resources in academic libraries, there are a lot of challenges bedeviling digitization exercise.

FINDINGS

At the end of the analysis, findings that were made are as follows:

- The major reasons for the digitization of library resources at John Harris Library include the need to preserve library resources for long use and to have better search and retrieval facilities for library materials.
- The main benefits of digitizing library resources are that digitization enables greater access to collections of all types and give the ability to search for library resources electronically without difficulties among others.

- The impacts of digitized library resources on the services of academic libraries include helping to offer more online services to library users and providing quick and easy methods of delivering services to them.
- There are many challenges facing digitization of library resources in academic libraries. They include deterioration of digital media, funding, inadequate technology infrastructures, technological obsolescence and constantly changing hardware and software amongst others.

CONCLUSION

After a careful investigation of the impact of library resources digitization on the services of John Harris Library, University of Benin, it has revealed based on the findings that the impact of digitized library materials on library services cannot be undermined. It is therefore safe to conclude that despite the tremendous benefits accrued to digitization, both to library staff and users as well as library services, the challenges facing digitization processes in academic libraries makes it a discouraging process. It can also be concluded that digitization of library resources has a profound impact on the services of academic libraries.

RECOMMENDATIONS

- Based on the findings from this study, the following recommendations are thus made:
- Adequate funds should be provided on a regular basis to maintain the digital library resources and their media.
 - Proper maintenance culture should be exhibited at John Harris Library so as to elongate the lifespan of these digitized resources.
 - Adequate technology infrastructures should be provided so as to be able to use these digitized resources to their fullest extent.
 - Library staff should be trained on the utilization of these digitized resources so as to improve their level of ICT literacy.
 - The management of academic libraries should encourage the constant training of library staff so as to be kept abreast of changes in the digital world.

REFERENCES

- Alegbeleye, G. O. (2009). *Avoiding technological quicksand: Coming to grips with the preservation of digital information in Nigeria*. A Paper presented at the 47th National Conference and Annual General Meeting of the Nigerian Library Association, July 26 - 31, 2009.
- Anunobi, C. U. & Okoye, I. B. (2008). The role of Academic Libraries in Universal access to print and electronic resources in the developing countries. *Library Philosophy and Practice*.
- Asogwa, B. E. (2011). Digitization of Archival Collections in Africa for Scholarly Communication: Issues, Strategies and Challenges. Available online at *Library Philosophy and Practice*.
- Ayoku, A. O. (2008). Transition to automated library information systems and the challenges for libraries in Africa. *Knowledge and information Management in the Digital Age: Concepts, Technologies, and African Perspectives*, Aina, L. O. et al. Ed., Ibadan: Third World Information Service.
- Besser, H. (1999). *Implications in digitizing special collections materials: The institution, scholarship, interoperability, legibility*. [Online]. Available: <http://sunsite.berkeley.edu/imaging/Databases/Conservation/RBMS99/ppframe.html>.
- Campbell, J. D. (2006). Changing a cultural icon: The academic library as a virtual destination. *Educause Review* 41 (1): 66 – 31.

- Carr, R. (2000). The future of libraries and collection. *Keynote Address to the Fiesole Collection Development Retreat*, Oxford, 20 July, 2000.
- Cullen, R. & Chawner, B. (2008). *Institutional repositories in New Zealand: Comparing institutional strategies for digital preservation and discovery*. Paper presented at Digital Discovery: Strategies & Solutions, IATUL 2008, 20 - 24 April 2008, Auckland, NZ.
- Currall, J. E. P. & Moss, M. S. (2010). Digital Asset Management. *Encyclopedia of Library and Information Sciences*, Bates M. J. (Ed.), 3rd ed. pp. 1528 - 1538.
- Eke, H. N. (2011). Digitizing resources for University of Nigeria repository: Process and Challenges. *Webology* 8 (1), Article 85. Retrieved 8th April 2017 at 5:46pm from <http://www.webology.org/2011/v8n1/a85.html>
- Ezeani, C. N. & Ezema I. J. (2011). Digitizing Institutional Research Output of University of Nigeria, Nsukka. *Library Philosophy and Practice*. Retrieved 7th April 2017 at 12:00pm from <http://unllib.unl.edu/LPP/>
- Fabunmi, B. A., Paris, M. & Fabunmi, M. (2006). Digitization of library resources: Challenges and implications for policy and planning. *International Journal of African & African American Studies* 5 (2): 1 – 9.
- Feather, J. & Sturges, R. P. (2003). *International Encyclopedia of Information ad Library Science*. 2nd ed. London: Routledge, 138.
- Gbaje, E. S. (2007). Digitization and Its Challenges. *Paper presented at the workshop for the Member federal Capital Territory Abuja Archive and History Bureau Committee and Liaison Officers* held at Arewa House, Kaduna June 3rd – 9th June 2007.
- Hazen, D., Horrell, J. & Merrill-Oldham, J. (2010). Selecting records collections for digitization. *Council on Library and Information Resources*. [Online]. Available: www.clir.org/pubs/reports/hazen/pub74.htm.
- Hughes, C. A. (2000). Lessons learned: Digitization of special collections at the University of IOWA Libraries. *Do Library Magazine* 6 (6): 1- 12.
- Kuny, T. & Cleveland, G. (2014). *The digital library: Myths and Challenges*. [Online]. Retrieved 10th April 2017 at 11:17am from <http://www.ajol.info/index.php/jorind/article/view/42299>
- Liu, Y. Q. (2004). *Best practices, standards and techniques for digitizing library materials: a snapshot of library digitization practices in the USA*. Retrieved April 8th, 2017 at 5:43pm from www.emeraldinsight.com/1468-4527.htm.
- Lombardi, J. V. (2000). Academic libraries in a digital age. *D-Lib Magazine* 6 (10). Retrieved 8th April 2017 at 5:41pm from <http://dlib.anu.edu/au/dlib/october00/lombardi/10lombardihtml>.
- Mohammed, Z. (2009). Towards establishment and management of institutional digital repository. *Libraries Create Future: Building on Cultural Heritage*. Paper presented at the 47th Annual National Conference & AGM of Nigerian Library Association, at Ibadan, 26 – 31.
- Musa, A. U. (2012). Digitization of Library Resources in Kashim Ibrahim Library: Processes, Challenges and the Impact on the Services of the Library. A Paper Presented at Kaduna State Chapter of NLA /AGM Conference held at Kaduna State University, Kaduna, 12th December 2012.
- Otubelu, B. N. & Ume, L. E. (2015). Digitization of Library Resources in Academic Libraries: Challenges and Implication. *IOSR Journal of Mobile Computing & Application (IOSR-JMCA)* 2 (2): 35 – 40.
- Pandey, P. & Misra, R. (2014). Digitization of Library Materials in Academic Libraries: Issues and Challenges. *Journal of Industrial and Intelligent Information* 2 (2): 136 – 141.

- Pinnell – Stephens, J. (2005). Alaska Libraries rescue two native oral history resources. In saving the stories. *American Libraries*, pp. 46.
- Silkroad, I. T. (2013). *Digitization Service*. [Online]. Retrieved 10th April 2017 at 11:12am from <http://digitizationservice.com/?p=3>.
- Stefano, P. D. (2001). Selection for digital conversion in academic libraries. *College & Research Libraries* 62 (1): 58 - 69.
- Thata, M. B. (2007). Building a digital library at the University of Zimbabwe: A celebration of team work and collaboration.
- Turock, B. J. and Friedrich, G. W. (2010). Access in a digital age. *Encyclopedia of Library and Information Science*, Bates M. J. (Ed.), 3rd ed. pp. 22 – 33.
- Warwick, C., Terras, M., Galina, I., Huntington, P. & Pappa, N. (2008). Library and information resources and users of digital resources. *Humanities Program: Electronic Library and Information Systems* 42 (1): 5 - 27.