DIGITIZATION OF LIBRARY RESOURCES IN KASHIM IBRAHIM LIBRARY: PROCESSES, CHALLENGES AND THE IMPACT ON THE SERVICES OF THE LIBRARY

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BEING A PAPER PRESENTED AT KADUNA STATE CHAPTER OF NLA /AGM CONFERENCE

VENUE: HELD AT KADUNA STATE UNIVERSITY, KADUNA

DATE 12TH DECEMBER, 2012

Abstract

The paper examines the concept of digitization, approaches in setting up digitization project, and the processes involved in the digitization of thesis and dissertations in Kashim Ibrahim Library, To illicit the necessary information needed, the study adopts documentary research method, while oral interview is used in gathering the data. The study discovers copyright issues, difficulty in digitizing some materials, technical support and security; constant change of hardware and software as the challenges facing the digitization project. In view of the challenges identified, recommendations were proffered. These includes; migration, emulation, use of anti-virus among others. The research concludes that digitization of library resources in the 21st Century can revitalized the libraries as information provider.

Introduction

In the 21st Century, universities in Nigeria have embarked on integration of technology in their operations. This serves as a mechanism for improvement and development, especially, in a situation where attention is drawn to the academic contents and ways of digitizing and preserving them for future use. Libraries have long played an essential role in containing, preserving, and sharing information. Many information technologies have been created over the years. The library itself has a technology to handles information storage and retrieval. University libraries are fully involved in this development as they are the heart of the University, being that they house the intellectual resources of the institutions. This effort to digitize the intellectual property of the institution is what is known as digitization (Eke, 2011).

Part of the emerging role of academic libraries is the implementation of institutional repositories (IRs), digital collections that capture and preserve the intellectual output of university communities (Crow, 2002). A repository established by a particular university or other research institutions is known as an Institutional repository. It can be intended to collect and preserve – in digital form – the intellectual output of an institution such, as Theses, Dissertations, Seminar papers, Conference proceedings, Preprints, Post prints, working papers, or technical reports. It can also contain the institutions digital library, the collection of printed and manuscript documents, public archives, and graphic material, originating from the institution or elsewhere, that the university has converted to digital form for use within the university, and generally available to anyone. It can also contain the administrative output of the institution, as reports, directories, and local archival documentation. A well-developed example is the Scholarship Repository of the (University of California Digital Library, 2011).

The digitization of research outputs of an institution is a step in the right direction for the building of institutional repositories of such organization. This is based on the fact that without electronic version of the research outputs institutional repositories will be difficult to establish. This perhaps gave rise to the definition of institutional repository as **"**a repository established, owned, developed and managed by public or private institution or organization, and/or its surrogate**" (**Mohammed, 2009). He further explains that, the repository contains active and inactive documents which accumulate over time in the life of the institution. Usually IR is mainly a collection of grey literature and other publications from the staff of the institution. According to Fabunmi, Paris and Fabunmi (2006), **l**ibrary digitization has become part and parcels of librarians and information scientist, and

most libraries in Nigeria are involved in digitization.

They further opine 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. It is inefficient and time consuming, hence the need to exploit the advantages of the digital library which enables a library to provide online services. However, there are a lot of challenges facing the setting up a digital library or conversion to digital status. Digitization is time consuming and it is also a very expensive exercise. Most third world libraries depend on books from Europe and America, and these books are very expensive for them to procure. According to Bekele (2002) there is a Persistent shortage of periodicals and other technical literature in research institutions, Universities and technical schools in the developing world, thus, making students, scientists, administrators and other information seekers to have limited access to innovations made outside their domain. Available local materials may not be as relevant as those in the developed countries. Having a digital library will solve these problems. However, there are a lot of challenges. There is a need to undertake a psychological preparation of the employees, so that they will not resist digitization of the library resources. There is also a need to retrain the workers. Creating a digital library is a very expensive venture which requires adequate planning and monitoring. The major problem is lack of technical-know-how; hence most digitization projects often run into problems. There is a need to design flexible and compatible program. In addition, the interface should be user-friendly so that users can search for information with ease. It is not all electronic copies of documents that will suit the application format; hence the need to take this into consideration during conversion or digitization exercises (Fabunmi, etal 2006).

Digitization

Digitization could be viewed as the process of converting non-digital born documents into digital format this 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 (Gbaje, 2007). It could also be seen as "the process by which analogue contents are converted into a sequence of 1s (ones) and 0s (zeros) and put into a binary code to be readable by computer" (Hughes, 2004). It is the transformation of analogue information from whatever form and from whatever support to digital code using computer technologies. This may "include electronic snapshots taken of a scene or photographs, films, manuscripts, printed texts and artworks scanned from documents" (Cornell University Library, 2001). Digitization process

converts archival materials from formats that can be read by people (analogue) to a format that can be read only with the help of machines (digital). It is a process of taking a physical object (analogue contents), and taking photographs of or scanning the item and transferring the photographs into a digital medium. It is also a process of archiving born digitals into the institutions collections**.** **(**Nwogo and Ezema, 2011).

Digitization makes materials available electronically and improves wider access and collaborative sharing of information resources. In the African context, digitization refers to "conversion of non-digital material to digital form" (Tsebe, 2005).

Approaches in setting up digitization project in a library

Fabunmi, Paris, & Fabunmi, (2006). Mentioned the following stages that should be considered When setting up a digital library:

(i) Policy enactment: A policy is a guiding statement. The top management should enact a policy on the project. Such a policy will serve as a reference point and guide for implementing the project. The policy should contain the goals of the digitization project. Good goal setting is important for any new initiative, and digitization is no exception. The goal 'to make our materials more accessible on the web' is not specific enough. There is a need to be specific, particularly on the categories of users that will access the collection, the type of material they may be interested in, how they will use it, how many people are envisaged to use it, the planned procedure for its advertisement, and the benefit of the material to users and institutions. Contacting current and potential users is an excellent way of having clues to all these issues. One may consider sending out a survey to the intended audience in order to learn how they are currently using the material, and how they might use it differently if it wasn't digitized. It may be helpful to contact other institutions that have digitized similar collections and learn from their successes and failures.

(ii) Policy approval: The policy should be approved by appropriate authorities before project implementation. For instance, a university library may need the approval of the university management and other funding agencies before any digitization project can be embarked upon.

(iii) Planning, budgeting and monitoring: This is a very essential stage. It is desirable to set up a planning committee that will draw the plan and budget for the digitization exercise. Budgets for digitization projects should include the following categories: (a) salaries, wages and benefits (likely to be about 50% of the project cost); (b) staff training; (c) equipment and supplies; (d) services, contracts and legal fees; (e) overhead and indirect costs (including offices and workspace); (f)

maintenance, licenses, and communications charges; and (g) contingency (setting aside about 10% of the total project budget for unexpected expenses).The purposes of the digitization project, the source of fund and the amount available for the project should also be taken into consideration. At the regional or national level, effective planning for digitization can bring together all types of libraries, museum, academic/professional societies, historical societies and archives to take advantage of the exercise. In USA, the planning for digitization in the Central New York brought together all types of libraries, museum, historical societies and archives which took advantage of expertise and content. The Central New York digitization project was supported by a Library Services and Technology grant provided by the New York State Library.

(iv) Acquisition of appropriate technology: The plan drawn for the project will determine the appropriate technology to acquire. Technology here refers to all the equipment/hardware and software that are needed.

(v) Administrative decision on the procedure to be adopted: Decision has to be made on the mode of operation, whether to just establish links with existing digital libraries or to digitize in-house or to contract it out. There is a need to establish time limit for the project.

(vi) Sensitization, psychological preparation and retraining of staff: In most places the staff will like to resist the digitization project. It is a common thing for people to resist change, just for the fear of the unknown. The library staff may fear that the success of the project may affect their jobs adversely. Those who are not computer literate may not be willing to adjust. All these categories of people have their genuine reasons to resist. It is the responsibility of the library management to educate them and allay their fears.

(vii) Copyright permission: Violation of the copyright laws should be avoided. It is not necessary to obtain copyright permission for materials published before 1922. Copyright permissions have to be obtained for materials to be digitized, particularly those that are not available in the government domain. When the copyright permission is granted, it is essential to enter the date of approval and the name of the person who granted the permission into the database. If an item is still under copyright, it can be digitized for in-house use only. Usually, copyright statements permit educational and non-commercial usage. Seeking copyright permission may even be another way of establishing collaborative and cooperative relationships. McCook reported how copyright permission was obtained for every material that was digitized. Even materials which some tribes held the copyright, permission for such was obtained from the Confederated Tribes of Warm Spring Reservation of Oregon. An introductory note was inserted in the database for this showing the source of the material

and the person who granted the permission.

(viii) Implementation and trial testing: At this stage it good to start with trial testing, using a few materials as samples. This will enable us to know whether the format and fields are flexible and suitable. Adjustments can be made. A pilot digitization project should start with a manageable collection. Focusing on items with consistent or standard formats (photographs of all one size or type, documents from one collection, etc) provides the best chance of success. If the trial testing is successful, the project then commenced. Data entry is rigorous, time consuming and very expensive. Existing materials can be scanned. Modification of scanned and digitized documents is very essential, so as to minimize errors. This will enable developers to put them in appropriate formats.

(ix) Evaluation of project: The top library management needs to be making periodic evaluation of the project. This will reveal lapses that have to be addressed. Evaluation is a neglected aspect of digitization projects. Project evaluations should not just be easily quantifiable figures or an attempt to determine program's impact on the user. Several digital projects are judged by the number of items they digitize. This is really one of the least useful measures of a project's success. The number of images digitized means nothing, if they are of low quality, hard to locate in a database, or not interesting to the public. Assessing how users are using digital materials provides a more effective evaluation tool. At the bare minimum, projects should be formally evaluated based on the set goals.

The digitization processes in Kashim Ibrahim Library

The digitization project in Kashim Ibrahim Library, started with a set target of digitizing Theses, Dissertations, Seminar Papers and Conference Proceedings. The project started in July 2005, as at that time only title page and abstract was digitized using flatbed scanner this information is usually uploaded using D-Space Software. As time goes on the Project witnessed a tremendous progress where more scanners were acquired that is Xerox DocuMate 752. The use of Xerox DecuMate 752 has greatly transform the digitization exercise where by full text is now being digitized. This scanner has the ability to scan multiple pages using the scanner's feeder with the aid of software call through the use **ABBYY FineReader 8.0 Professional Edition** although; there is an upgrade of this version of software which is version 11. Part of the policy of the project is that only material from the year 2000 downward should scan in hard copy while from 2000 upward the soft copies are to be converted in to portable document file (PDF), which will then be uploaded using D-Space.

How to Convert a Document Using ABBY FineReader 8.0 Professional Edition

The document input process includes four steps: *scanning/opening, reading, spellcheck* and *saving* the recognized text. You can OCR a paper document in one easy step by using **an automated task,** the **Scan&Read** or **Open&Read** commands or let the **Scan&Read Wizard** guide you through the individual steps of the process.

Converting paper documents

1. Turn on your scanner prior to starting ABBYY FineReader. (Many scanner models require the unit to be turned on before starting your PC.)
2. Next, turn on the computer and start ABBYY FineReader (**Start>Programs>ABBYY FineReader 8.0 >ABBYY FineReader 8.0 Professional Edition, Corporate Edition** or **Site License Edition**) the **main window of ABBYY FineReader** will appear on your screen.
3. Place the document on the scanner or insert your document on the feeder.
4. Click the arrow to the right of the **Scan&Read** button in the main window. Select the appropriate item in the local menu:
   - The **Scan&Read Wizard** is a special *Scan&Read/Open&Read* mode during which you are guided through each step of the OCR process.
   - **Scan & Read scans** paper documents and recognizes the images.
   - **Scan to PDF** scans paper documents, recognizes the images and sends the recognized text to Adobe Acrobat/Reader.
   - **Scan to Word** scans paper documents, recognizes the images and sends the recognized text to Microsoft Word.

Once scanning is complete, the scanned document will appear in the **Image** window. Then ABBYY FineReader will start reading the image and analyzing its layout. Recognized text will be shown highlighted in blue within the document. The recognized data will also be displayed as editable text in the **Text** window When using automatic reading then you have to edit the work, however, In Kashim Ibrahim Library we capture the whole batch as picture block with the exception of title page and Abstract where the editing will be performed on title page and Abstract only which is been captured as text. After that ABBYY FineReader will send the recognized text to an application of your choice or save the recognized text to a file of a format and location you selected.

How to convert a soft copy into portable document file (PDF)

The steps are as follows:

1- Slot in your C-D into your C-D Drive and click on my Computer Menu to access the content.

2- As most of the work come in parts or chapters a times you have to merge all pages serially into a single file.

3- You now convert it into Portable Document File (PDF) by using PDF converter (Nitro PDF Express) after the material have been digitize it is normally stamp "full-text digitized"

How to Upload your Content into D-Space

DSpace Software consists of Communities, Sub-communities and collection for the submission to commence first and Foremost Communities and Sub-communities must be created before you start your submission. However, after the creation of the communities and sub-communities the submission of the collection could be done. **Abdulkadir (2011)** described the following process in Uploading document in to DSpace.

Choose Collection

At the top of the submit pages one will find 7 oval buttons representing each step in the submission process. As one move through the process these ovals will change color, once you have started you can also use these buttons to move back and forth within the submission process by clicking on them. No data will lose by moving back and forth.

Select Collection:

Click on the arrow at the right of the drop-down box to see a list of Collections. Move your mouse to the collection into which you wish to add your item and click. You must be authorized by a community to submit items to a collection. Click on the "next" button to proceed, or "cancel/save" button to stop and save or cancel your submission.

Submit: Describe Your Item -Page 1

If one responds "yes" to any of the questions on this page, he will be presented with a modified input form tailored to capture extra information. Otherwise he will get the "regular" input form.

* More than one title - Sometimes an item has more than one title, perhaps an abbreviation, acronym, or a title in another language. If this is the case, and he wants this information captured, click in the "yes" box.

* Previously issued - New items that have NOT been previously published or distributed will be assigned an issue date by the system upon Dspace distribution. If one is entering older items that

have already been distributed or published, click in the "yes" box. One will receive a form prompting him for several pieces of information relating to publication.

* Multiple files - An item can consist of more than one file in Dspace. A common example of this would be an HTML file with references to image files (such as JPG or GIF files). Another example of this is an article supplemented with a video simulation and a data file. If one is submitting more than one file for this item one should, click in the "yes" box then Click on the "next" button to proceed, or Click "cancel/save" button to stop and save or cancel the submission

Submit: Describe Your Item - Page 2

The information one fill in on these two screens will form the metadata record that will enable users to retrieve the item using search engines. The richer the metadata, the more "findable" the item will be. Here the issues of **Author, Title, Date of Issue, Publisher, Citation, Series/Report No.: Identifiers, Type, Language, appear,** for the Author it can be a person, organization or service unit responsible for creating or contributing to the content of the item. By clicking on the "Add More" button one can add as many authors as needed.

Submit: Describe Your Item - Page 3

Subject/Keywords: instruction

Please enter as many subject keywords as are appropriate to describe this item, from the general to the specific. The more words one provides, the more likely it is that users will find the item in their searches. Use one input box for each subject word or phrase. One can get more input boxes by clicking on the "add more" button.

Abstract:

One can either cut or paste an abstract into this box, or type in the abstract. There is no limit to the length of the abstract.

Sponsors:

If the item is a product of sponsored research, one can provide information about the sponsor(s) here. This is a freeform field where one can enter any note one like.

Description:

Here one can enter any other information describing the item one is submitting or comments that may be of interest to users of the item. Click on the "next" button to proceed, or "cancel/save" button to stop and save or cancel your submission.

Submit: Upload a File 4

There are two methods of entering the name of the file one wishes to upload:

1. Type the full path and file name into the input box and then click on the "next" button in the lower right hand corner of the screen.
2. Click on the "browse" button and a window showing your files will appear. One can navigate through his directories and folders until one find the correct file to upload. Double-click on the file name you wish to upload, and the name will be entered into the input box.

File Description

If one specified at the beginning of the submit process that he has more than one file to upload, he will see an input box marked "**File Description**". The information he provide here will help users to understand what information is in each file, for instance, "main article" or "images" or "computer program" or "data set". Enter file descriptions for each item, and click on the "next" button to proceed.

Submit: File Formats

To properly archive and give access to a file, one needs to know what *format* it is, for example "PDF", "HTML", or "Microsoft Word". If the system does not automatically recognize the format of the file one has uploaded, one will be asked to describe it. If the format of the file appears in the list offered, one should click on it and then on "Submit". If the format is not in the list, click on "format not in list" and describe the format in the text box lower down on the page.

Uploaded File

After one has uploaded the file, then one should check the information in the table to make sure it is correct. There are two further ways to verify that your files have been uploaded correctly:

- Click on the filename. This will download the file in a new browser window, so that you can check the contents.
- Compare the file checksum displayed here with the checksum you have calculated.

If you're only uploading one file, click on "Next" when you're happy that the file has been uploaded correctly. **If you're uploading more than one file**, click on the "Add another File" button this will appear if you check "The item consists of more than one file" on the "Submit: Describe Your Item" page. When you are satisfied that all files for this item have been successfully uploaded, click on the "Next" button.

Submit: Verify Submission 5

This page lets one review the information he has entered to describe the item. To correct progress bar at the top of the page to move around the submission pages. When you are satisfied that the submission is in order, click on the "Next" button to continue. Click on the "Cancel/Save" button to stop and save your data, or to cancel your submission.

Submit: License 6

Dspace requires agreement to this non-exclusive distribution license before your item can appear on Dspace.

Submit: Submission Complete 7

Now that one submission has been successfully entered into the D-space system, it will go through the workflow process designated for the collection to which one is submitting. Some collections require the submission to go through editing or review steps, while others may immediately accept the submission. One will receive e-mail notification as soon as one's item has become a part of the collection or if for some reason there is a problem with his submission.

Statement of the problem

Since the commencement of digitization project in 2005 to date there is no any study to find out the process, challenges and the impact of it to the services of Kashim Ibrahim Library (KIL).

It is on this premise that this study was undertaken as written source of reference to workers and researchers concerning the project.

Objective of the study

The objective of the study is as follows.

1. To find out the types of information resources available for digitization in Kashim Ibrahim Library.
2. To find out why information resource are digitized in Kashim Ibrahim Library.
3. To examine the benefits of digitizing information resources in Kashim Ibrahim Library.
4. To identify the challenges facing Kashim Ibrahim Library in their efforts to digitize their collections.
5. To proffer solutions/recommendations to the problems identified.

Methodology

The method adopted for this study is documentary research method using interview as an instrument for data collection, a web search was conducted, and Information was also gathered by observation and work experience from the researcher who has been a part of the digitization exercise.

Review of related literature

The world is fast changing; academic Institutions are now responding to these global changes by adopting Institutional digital repositories in their various institutions. Florida State University (2012) observed that supporting faculty and researchers by offering greater, more immediate access to peer research will improve the caliber of scholarship that institution produces. Thata (2007) while reporting the digitization exercise at the University of Zimbabwe he stated that in 2002, the University of Zimbabwe library started participating in DATAD, the Database of African Theses and Dissertations of the Association of African Universities (AAU). Through this facility, titles, abstracts, and the names of authors and supervisors, were uploaded to a database that is searchable on the World Wide Web. A natural growth of this was the development of a full-text e-theses database, the Electronic Theses and Dissertations database (ETD). This is searchable and accessible on the campus-wide network; the library is engaged in discussions with the university community on how to expand access to the e-theses by the wider community beyond the University of Zimbabwe. The latest development in increasing access to the content of locally published research is the Institutional Repository (IR), a digital repository of the output of University of Zimbabwe academics. Considering the nature of research output emanating from academic Institution, In this regard major information resources being digitize are thesis, dissertations, conference proceeding, seminars etc.

Digitization being one of the important aspects of current global information trends, it 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.

Tevera and Mlambo (2007) stated that the work on building the University of Zimbabwe repository began in June 2005 with the objectives of comprehensively collecting articles and research output of university scholars and researchers; digitizing the scholarly output of the university, disseminating these products and publications widely and preserving the products of the scholars.

However, Cullen and Chawner (2008) postulated that reasons for setting up repositories vary, and a range of projected benefits has been suggested in the literature. These include benefits to the researcher, to the institution, and to individual disciplines. Academic libraries also benefit from being involved in institutional repository initiatives, and there are implications for scholarly communication overall. The primary reasons used to persuade academics of the benefits of placing their output in an institutional repository is exposure—that by having their research and publications openly available on the Web, not just in fee-based databases, scholarly journals, or books, their work is likely to be used and cited more. As a result, their reputation will be enhanced over the long term, due to the recognition they gain from

this (Pinfield, Gardner and MacColl, 2002). 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 (Lynch, 2003).

Many of the benefits identified, though, are at the institutional level, or even at the national level. In Japan, for example, the Ministry of Education, Culture, Sports, Science and Technology has encouraged Japanese university libraries to develop institutional repositories to promote sharing of knowledge throughout Japan and internationally (Cullen and Nagata, 2008). The development of institutional repositories in Africa is seen as a way of making institutional research outputs available to a community with less than optimal access to resources (Musoke, 2008). In a survey of academic library directors and senior administrators carried out in 2006, Ried et al. identified "capturing the intellectual capital of [the] institution" as the most important benefit of an institutional repository (Ried et al., 2007). Improved long term preservation of the institution's digital assets is another benefit to be realised through centralising content in known, standardized formats (Crow, 2002,). Digitization improves access to library resources. 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 Ingram, (2000). Digitization can raise the profile library and breathe new life into older ones. Digitization of priceless and valuable collections of an institution can bring prestige to the whole institution (Asogwa, 2011). It creates visibility not only of the library's (institutions) content, but the scholars work within the university and raises the profile of an institution by showcasing digital collections which can be a useful public relations exercise (McKay, 2003); (Ezeani & Ezema, 2009).

However, despite the tremendous benefit involve in digitization of information resources in academic institutions, yet, there are a lot of challenges bedeviling digitization exercise, the most common challenges includes; Technological Obsolescence/Constant Changing Hardware and software, copyright issues, Technical Support and Security, difficulty in digitizing some materials, unavailability of needed materials etc. Many researchers in the field attested to the fact that digitization faces a lot of challenges. According to Besser (1999) continuously changing software and hardware creates headache for staff working on digital longevity. Fabunmi, Paris, & Fabunmi, (2006) observed that copyright issues posed a serious challenge to the digitization exercise, this is because most of the authors are not willing to release their license materials for digitization, as they are afraid of losing their royalty form their publications. 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. Virus attack on the files and systems is posing a lot of threat for example several virus attacks have been witnessed, which lead to loss of so many digitized material in University of Nigeria Nsukka.

However, there is an adage that no disease without cure, as a result a lot of measures are in place to tackle the challenges raised. This includes refreshing of digital medium, emulation, continuous migration etc.

Refreshing: This is a way of periodically moving files from one physical medium to another in order to avoid the obsolescence or degradation of the storage medium. Asogwa (2011) stated that refreshing enables digital files to be transferred periodically to new physical storage media in order to refresh the materials and keep them from physical decay and obsolescence of the medium, or the materials will be inaccessible. Loss of format is disturbing issue because as information is transferred from program to program, information is lost when analogue material is digitized, and information may also be lost as digital resources are refreshed or migrated to modern computing environments. As Besser (1999) remarks "although identical digital copies may be made from digital files, functionality from every software program cannot be emulated". Likewise Alegbeleye (2009) suggested that digital archives should be transcribed every ten to twenty years to ensure that they will not become technologically obsolete. Migration is seen as a means of solving the challenge posed by technological obsolescence by transferring digital resources from one hardware/software generation to the next. According to Gbaje (2007) continuous migration is also a solution to digitization challenges; this is a process where you copy data from one Technology to another to avoid obsolescence of both physical media and data format standard. The purpose of migration is to keep on preserving the intellectual contents of digital objects and retain or maintain the ability of users to keep on using them in the face of constant changing technology.

Finding of the study

The findings from the interview, observation and working experience of the researchers discovered were analyzed and discussed under the following headings:

Types of information resources available for digitization in Kashim Ibrahim Library

The finding of the study reveals that the information resources available for digitization in Kashim Ibrahim Library are theses, dissertations, seminar papers, conference proceedings and reports. The

researchers observed that the reason why other forms of information resources such book, reference material, scholarly journals are not digitized could be due copyright issues attached.

Reasons for digitizing information resource in Kashim Ibrahim Library

The study found the reason why Kashim Ibrahim Library digitized some of its local content. The reasons are: Need to preserve rare and endangered library resources, improvement of the efficiency of information dissemination and ensure wider access to the materials, reduction of over-handling of materials, and assisting in promoting the collections, the researchers and the institution itself. It's also important in reducing time wastage as the digitized library resources can be access online without stress and finally, enable multiple users to access information anywhere at any time of the day.

The benefits of digitizing information resources in Kashim Ibrahim Library

Digitization improves access to library resources. 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. By digitizing information resources of Kashim Ibrahim Library collections, it has resulted into raising the profile of the library and the institution where it is ranked among the five registered 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 university.

Challenges of digitization of library resources

In the course of conducting the research the following challenges were identified:

- Constant Changing Hardware and software:

The constant changing technology in computer hardware and software causes technological obsolescence which is a Challenge to digitization and digital preservation in Nigerian Universities. It causes the loss of the means to access information in digital form. Technological obsolescence is as a result of continuous upgrade of Software and hardware devices; operating system, programming language application and storage media. Example of this in Kashim Ibrahim Library is the upgrade in the OCR software that is using which is ABBY fine readers 8.0 professional edition now this

same software has been upgraded and we now have version 11. Likewise at onset the Dspace software was installed on Windows operating system but now it has been migrated to Ubuntu operating system.

- Copyright Issues

As individual own the Intellectual property of their works, hardly do they make it available for inclusion in to the institutional repositories and only few freelance Authors do comply to submit their publication for inclusion in the repository, the then University Librarian Professor Zakari Mohammed is a good example where he gave almost all his publication for inclusion in to the repository, owners of other scholarly works are reluctant to bring out their resources to the public domain as this would bring about so much loss of royalty for their work. The issue of copy right poses a great deal of challenge.

- Technical Support and Security

The need to secure and protect digitized information resources from illegal access and virus attack is highly commended, as lack of security and piracy of digital information resouces is a great challenge that demands attention. Virus attack on the files and systems is posing a lot of threat for example Several Virus attacks have been witnessed which lead to loss of so many digitized material example of such viruses are “Trojan win 32 Genome gpq” and “Raila Odinga” this two viruses have attacked files on several occasions that lead to the loss of digitize material.

- Difficulty in digitizing some materials

Part of the law enacted by the university authorities that all postgraduate students must submit both hard and soft copies of their theses/dissertations. Academic staff most a times supplies their scholarly publications in CDs. So there are cases of empty C-Ds as there is no body to check at the poit of submitting these CDs at post-graduate school. In some cases have occurred where the drives could not open, nor read the CDs provided. Cases of C-D with some part of chapters missing are very common as a result, a section has been created for dumping of such CDs and they are tagged either “empty C-D” or "problem documents". On the side of digitizing hard copy some materials are too large to be scanned and also paper texture (too hard or too soft) makes the scanner to be jamming.

- Unavailability of Needed Materials

Most materials shifted for digitization from document unit of the library have to be unravel in the bindery section. The time taken to unravel, scan and upload makes these resources unavailable for usage. This keeps the library users stranded if they are in urgent need of such materials.

- Some chart diagrams and accompanying object are too large for the scanner to capture

Solutions/Recommendations

Based on the above challenges identified, the following solutions were proffered:

- Constant upgrading of software with backup before each upgrade
- Advocacy and the submission of preprint should be encourage by the library
- Antivirus should be installed and periodically updated
- Staff should be deployed for checking of CDs before submitting
- Workflow time should be reduced
- The use of digital camera and photoshop software should be encouraged

Conclusion

Digitization plays an essential role in modern day librarianship. It creates new ways to search and access library content Kashim Ibrahim Library has been making efforts to digitize the resources of the institution, despite the numerous challenges, it must set priorities concerning how records in their repositories can best be preserved and utilized to benefit the institutions and the users in this electronic age. Kashim Ibrahim Library Digitization Project is a step forward leading Nigerian Universities to a greater height, Strong partnership and collaboration with other related project and Donor agencies is very important. As digitization offers many benefits to libraries, at this stage the beneficiaries will be the Academic libraries, although there are a lot of challenges, there is the need on the part of the library to keep abreast of constant changing technology in order to meet up with the challenges. Digitization of library resources in the 21st Century can revitalize the libraries as information providers, but only if issues of copyright, licensing, access and cost can be successfully addressed to allow a wide range of libraries to adopt the concept.

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