

DIGITIZATION OF LIBRARY RESOURCES IN ACADEMIC LIBRARIES: ISSUES AND CHALLENGES

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1. Introduction

With the advent of information and communication Technology and the internet facilities the traditional function of the library as a place for storage and preservation of library resources has changed dramatically. Academic libraries are duly bound to acquire, preserve and disseminate information for whatever source, hence there is need for such sources of information to be kept preserved and made available in a more convenient and accessible format, this call for digitization which is the process of converting analog (print, caving, artifacts etc) materials to digital/electronic format.

Digitization refers to all of the steps involved in the process of making convections of historical and other materials available on line. In the world of Information and Communication Technology (ICT) and globalization, digitization of materials is fast becoming the norm among libraries as each seeks to contribute its quota to the world information resource. Libraries embark on the digitization of their resource available electronically thereby providing a wider access to its collections. In a networked campus, users can access the libraries digitized resources from their offices and house 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.

2. Reasons for Digitization

Digitization could be viewed as the process of converting non-digital born documents into digital format, this includes selection of collection/materials, imaging or scanning, transcribing, creating markup and index, creating metadata, processing images, uploading to the web, preserving and maintaining archival media (Gable 2007). It is the transformation of information from whatever forms or from whatever support to digital code using computer technology. This may “include electronic snapshots taken of a scene or photograph, films,

manuscripts, printed texts and artworks scanned from documents” (Cornell University Library, 2001). It could also be seen as “the process by which analogue content are converted into a sequence of 1s (ones) and 0s (zeros) and put into a binary code to be readable by computer” (Hughes, 2004). Ndor (2007) in his own passion sees digitization as turning information into binary digits. It refers to the process of translating Piece information such as a book, sound recording, picture or video in to bits. Bits are the fundamental units of information in a computer; it is therefore a crucial transitional step from traditional to electronic library. Digitization makes materials available electronically and improves wider access and collaborative sharing of information resources. In the Africa context, digitization refers to “conversion of non – digital materials to digital form” (Tsebe, 2005).

3. Purpose for Digitization of Library Resources

The word 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, 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. 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. There are three main reasons for digitization endeavors:

- A. There is a need to preserve endanger library resources
- B. The improvement of the efficiency of information search mechanism
- C. Digitization improves access to library resources.

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. Pennell Stephens (2005) reported the digitization of two oral history resources in Alaska, USA to ensure preservation an greater access. Liu (2004) reported that libraries usually digitize the achieve 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.

4. Process of digitization of library resources

There are certain factors that must be considered when digitization projects are to be embarked on in developing countries and these include the following ten stages.

A. 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.

B. Policy Approval

The policy should be approved by appropriate authorities before project for digitization is implemented. 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.

C. Planning, Budgeting and Monitoring

It is the most essential and 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:

- Salaries, wages and benefits (likely to be about 50% of the project cost)
- Staff training;
- Equipment and supplies
- Services, contracts and legal fees;
- Overhead and indirect costs (including offices and workspace);

- Maintenance, licenses, and communications charges
- Contingency (setting aside about 10% of the total project budget for unexpected expenses)

D. 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.

E. 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.

F. 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.

G. Legal/Copyright Issues

One of the most important selection criteria for digitization will be the copyright status of the original materials. Will it be possible to obtain permission to digitize? After digitization, will the institution be able to protect the digital assets by managing the rights to their use? If the institution does not have the rights to digitize, or the means to manage the digital assets, then digital project should not embarked on.

H. Selection Criteria

In developing selection criteria for digitization, the process of selecting specific item to be digitized will employ such standard library selection criteria such as value, significance to the overall collections, user demand and interest, availability and fragility of the original. The UNESCO, IFLA, and ICA suggest that digitization projects should be *user driven* or based on high demand for access [11].

I. Verifications

Having selected materials for digitization, the next thing to do is to verify or ascertain whether digital copies of such materials already exist. Duplication of efforts is not necessary. Conventional development policies always try to avoid the purchase o copies whose editions

already exist in the collection [12]. However, re-digitization is necessary if the electronic resources created were carried out using older technologies.

J. Metadata

Metadata simply means information about information that describes digital objects and enables users to find, manage and use digital objects. It represents the total historic record of the digital object and the totality of information about the object. For developing countries good metadata is a key component of developing digital archives that are usable and useful for long term. Metadata helps to identify the work, who creates it, migrated or reformatted it, and other descriptive information; it provides unique identifying information about the organization's, files, and databases that have detailed information about the digital contents; describes the technical environment in which the digital files were created, equipment, used, the software, operating systems and other things.

5. Benefits of Digitization of Library Resources

These can be summarized as access, support of preservation activities, collection development, institutional and strategies benefits, research and education. The obvious benefit of digitization is that it enables greater access to collections of all types.

6. Institutional and Strategic Benefits

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 digitization of priceless and valuable collections of institutions brings prestige to the whole institution as it creates visibility not only of the library's content, but the scholars work within the university. 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.

7. Research and Education

Digitization creates accessibility to the research findings, improve access to research work, reports and other intellectual contents it 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 order to achieve optimum development goals in the institution.

8. Challenges of Digitization of Library Resources

A. Selecting Documents:

B. Copyrights:

C. Longevity of C. D. Storage Media:

D. Funding:

E. Technophobia:

9. Conclusion

The changes in the information are rapid and unprecedented, and it is necessary for the information professions to change with it. One of the most difficult aspects of digital curatorial management is the blurring of customary boundaries. Academic librarians are the gatekeepers of learning, and should keep in mind their goals of the creation and dissemination of knowledge. Indeed, the motivation of librarians to participate in the mass digitization of cultural artifacts comes not from any new technology but from commitment to service.

Digitization is an important aspect for academic libraries in 21st century .As user demand grows for the digitization of cultural research material; the academic library community will need to pay close and careful attention to the changing information needs of scholars and students of the humanities.

The users of academic libraries are migrating onto the Web for their information needs, and library services must migrate with them if those needs are to be met. Digital collections should be available through user-friendly search mechanisms that are as powerful and easy to learn as Google. Libraries need not be search engines, but some changes must be made in order for libraries to compete with search engines. User interfaces should be rationalized according to principles of information architecture. Many patrons who have expressed preference for physical items stated that browsing such collections enables better resource discovery. With virtual worlds such as Second Life, there is no reason why patrons should not be able to browse a digital collection in exactly the same manner. Digitized items could be visualized as a bookshelf, and value can be added through search mechanisms that allow the user to rearrange the bookshelf at its will.

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