

Prospects of Digitizing Manuscript Collections in K K H Library: A Model

Rekha Rani Saikia

Binita Kalita

Abstract

The paper enlightens how to preserve the manuscript collections in digital environment. Considering the importance of manuscript as a source of historical & cultural information it is important to initiate projects aimed to preserving them and making them accessible in ICT environment to information seekers. The study goes into depth to investigate the digitization process of manuscript collections in KKH Library along with digitizing tools, software, digitizing work flow etc.

Keywords: Digitization, Manuscripts, KKH Library, DSpace, Digital Library Software.

1. Introduction

The most obvious benefit of digitization is to preserve and provide the aggregation of various resources in digital form, using digital technology and resources are preserved for future generation and simultaneously made accessible for current use digitization involves conversion from analog to digital with the boom in the information technology and also with the changes in the retrieval of information need arises to convert the heritage into digital format. It provides a means of preserving the content of the materials by creating an accessible facsimile of the object in order to put less strain on already fragile originals.

2. Area of the Study

Considering the importance of digitization in the present day context, the study is intended to show the prospects of digitization in KKH Library. Krishna Kanta Handique Library is the central library of Gauhati University, Assam.

It is essential to carryout the preservation and conversation works of manuscripts in KKH Library for future posterity.

3. Objectives of the Study

The objectives of the study are-

- a. To facilitate the long term management and preservation of manuscripts.
- b. To facilitate new forms of access and use
- c. To enhanced access for improving services to an expanding user group.
- d. To reduce the handling and use of fragile or heavily used original material and create a backup copy for endangered material.

4. Manuscript Collections of KKH

KKH Library has in its possession a small holding of manuscripts representing some basic and important branches of knowledge. These manuscript collections are mostly part of some collections belonging to eminent personalities of India which were donated by their heirs. The total number of manuscripts is about 4,500 copies. These collections are mostly 200-300 year old and a little fraction is of 400 years old. The script of these collections is old Assamese and languages are Assamese, Sanskrit, Bengali, Nepali and Tibetan. Manuscripts are primarily available in Sanchipat, Tula pat, Palm leaves, and hand made paper.

5. Why we need Digitization of Manuscript

In the globalization the world has witnessed rapid changes over the last decade, increased competition and technological advances. The development of information technology and communicating system has brought revolutionary changes in the organization and management of information. Digitization is a process through which extension and enhancement of information storage and retrieval systems that manipulates digital data in any medium (text, images, sounds, static or dynamic images) and exist in distributed networks. Digitization is necessitated for both accessibility and preservation. In this sense, we can say that, digitization of manuscripts is the only way to exchange cultural heritage to the communities.

6. Digitizing Tools

Validity and extent of usefulness of a digital library would depend upon its tools. Some of the basic requirements for digitizing manuscripts are as follows-

- ◆ **Scanner:** Various types of scanners are there, e.g., flatbed scanners, sheet feeders, drum scanners, etc.
- ◆ **Digital Camera:** Digital camera is very useful for scanning of fragile materials like manuscript, rare book, as these materials can not bear the any touchable pressure of scanning.
- ◆ **Image Processing Software:** With the help of these software scanned images can be edited and modified. Example- Adobe Photoshop.
- ◆ **File Compression software & OCR Software**

7. Digital Library Software

Some important digital library software are-

- ◆ **GSDL:** Greenstone Digital Library, popularly is a suit software for building and distributing digital library collections. It provides a new way of organizing information and publishing it on internet or on CD-ROM. Greenstone is produced by the New Zealand Digital Library project at the

University of Walkato headed by Prof. Lan H. witter. It is an open source; multilingual software issued both source and binary code under the terms of GNU General Public License (GPL).

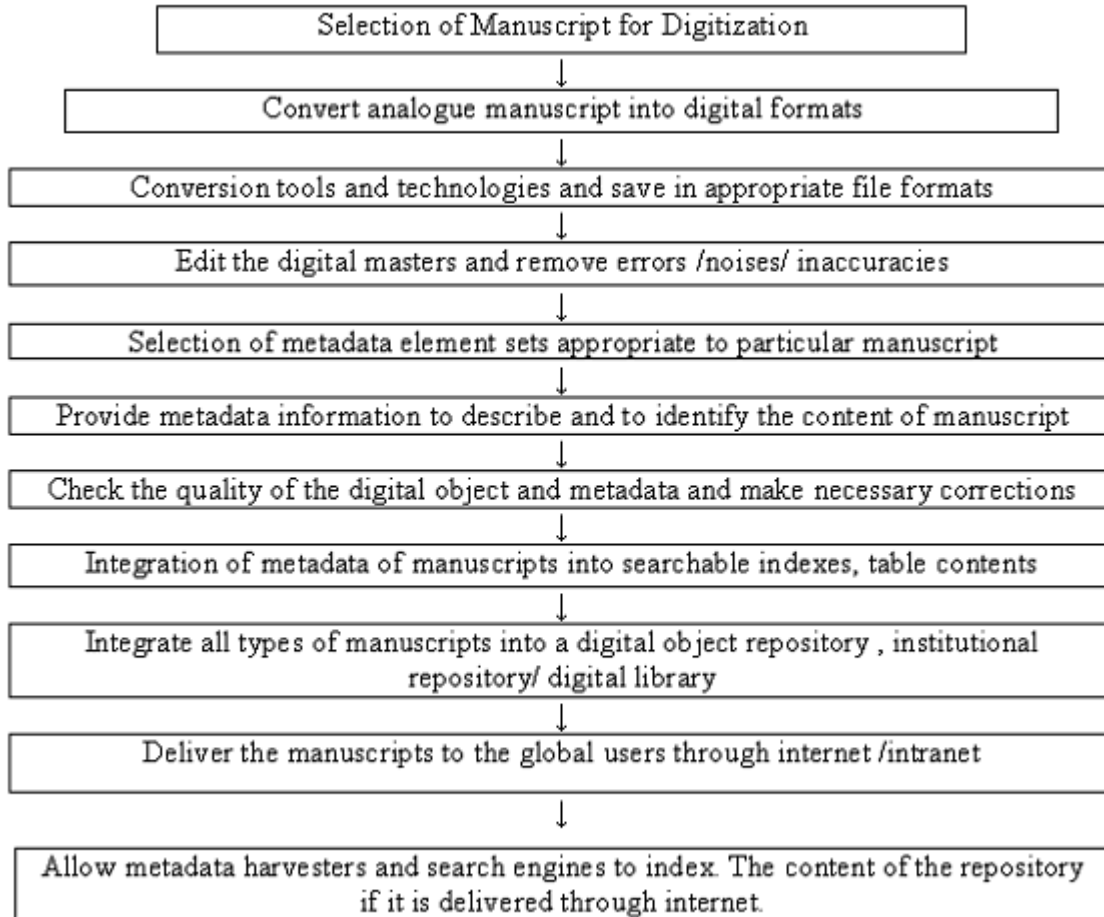
◆ **DSpace:** Dspace is software of choice for academic non profit and commercial organization building open digital repositories. It is free, easy to installation and completely customizable to fit the needs of any organization. It preserves and enables easy and open access to all types of digital content including text, images, moving images etc.

◆ **Eprints:** Eprints is developed at the school of Electronics and computer science, university of Southampton, U.K. Open source software is the most flexible platform for building high quality, high value repositories, recognized as the easiest and fastest way to set up repositories of research literature, scientific data, student theses, project reports, multimedia artifacts, teaching materials, scholarly collections, digitized records, exhibitions and performance. Eprints repository software helps us to manage and control a portfolio of local, enterprise and cloud storage services and digital preservation activities.

8. Workflow of Digitizing Manuscripts

Digital format implies any kind of bit stream with the extensions like PDF, JPEG, TIFF, PNG, XLS, GIF, etc. If a document is created in digital environment and available in a digital format, it can be called a "born digital" object. If a document is only available in physical format it can be converted into digital format through digitization process.

After converting analogue objects into digital objects, there will be a need of quality control that may check quality of digital masters. The digital masters should be stored in appropriate file formats and aspirate feature (e.g. resolution, size) metadata elements are required to describe and identify a document. After metadata creation, the manuscripts are to be integrated into the repository which can be made accessible through on line mode. The work flow of digitizing manuscripts is given below:



9. Prospects of Digitization of Manuscript in KKH Library

Recently National Mission for Manuscripts (NMM) takes place the initiation to preserve the manuscripts for the posterity, yet the digitization process is an infant stage only. Under the National Mission for Manuscripts around 2000 manuscripts of KKH Library have been converted into the digital format. It is better to mention that, in Assam, KKH library is working as Manuscript Resource Centre (MRC) and Manuscript Conservation Centre (MCC).

In this respect we can say that if the authority of KKH Library takes full initiatives along with the NMM in digitization of manuscript collections available in KKH Libraries as soon as we able to get better opportunities to exchange our cultural heritage to the society in a more convenient way.

9.1 Advantages of Digitization

- ◆ **Remote access:** Digitization facilitates any where access to its collections according to the users need.
- ◆ **Multiple accesses:** - One of the most important advantage digitization is multiple access documents. If a book is in physical format, then it can be handled by only one person in the specific period, but through the digitization process, it can access the specified document by several users at a time.
- ◆ **Preservation and Conservation:** Digital reproduction and visually immortal, minimizes handling of originals, reconstruction using image processing techniques, use of life size print reproductions for conservation.
- ◆ **Dissemination and promotion:** Dissemination of knowledge & culture via the internet is a 21st century phenomenon.

9.2 Barriers of Digitizing Manuscripts in KKH Library

- ◆ Lack of interest about the digitization of the concerned authority.
- ◆ Lack of knowledge of library personnel about digitization.
- ◆ Lack of trained manpower
- ◆ Lack of fund.

10. Digitizing Manuscripts in KKHL with DSpace: A Model

10.1 Why DSpace?

The DSpace is a joint project of the MIT Libraries and HP labs. DSpace is a digital repository system, which captures, stores, indexes, preserves and redistributes an organization's research materials in digital format. Research institutions worldwide use DSpace for a variety of digital archiving needs from institutional repositories (IRs) to learning object repositories or electronic records management, and more. Open-source systems like DSpace are available for anyone to download and run at any type of institution, organization, or company (or even just an individual).

Some important features of DSpace are-

- ◆ DSpace captures digital material directly from the creators
- ◆ Allows descriptive, technical, and rights metadata
- ◆ Searches metadata & full text
- ◆ Delivers content over the web
- ◆ Content in supported formats for long term preservation

Keeping in view of the above points DSpace has been opted as the digital library software for digitizing the manuscript collection of KKH Library.

10.2 Digital Archive of Manuscripts: Krishna Kanta Handiqui Library



Figure 2: Home page of Digital Archive of Manuscripts: KKH Library

Figure no. 2 will be the homepage of Digital Archive of Manuscripts: KKH Library. From the home page users can access the manuscripts opting the navigation keys e.g. "Communities and Collection", "Titles", "Authors", "Subjects", & "By Date". He can also use the "Search option" to search his required document. "Advanced Search" option is for sophisticated search using Boolean operators.



Figure 3: Communities & collections of Digital Archive of Manuscripts: KKH Library

There will be one top level community, e.g., "Manuscripts of Assam". Under this community three collections will be created namely- "Manuscripts of Pre Ahom Period", "Manuscripts of Ahom Period", and "Manuscripts of Post Ahom Period". All manuscripts will be uploaded in these three collections according to their period of origin.



Figure 4: An Item or Manuscript Entry with Metadata

DSpace uses Dublin Core metadata for tagging an item. Hence, an item in Digital Archive of Manuscripts: KKH Library consists of the metadata of the manuscript along with the digital file or set of files.

It will be a big project which will also require trained manpower along with necessary IT infrastructure therefore the major task is to find a funding agency because finance is the root of all. After the designing part, the archive will have to host in the web for global access.

11. Conclusion

Digitization deals with acquiring, converting, storing and retrieving in standardization & organized manner with the help of modern technical gadgets. In libraries the most obvious benefit of digitization is to preserve and provide the aggregation of various resources, in digital form, using digital technology, and resources are preserved for future generation and simultaneously made accessible for current use. Most of the rare materials housed in various libraries of the world are not in good shape and required special preservation techniques. Digital preservation needs the availability of appropriate infrastructure tools and techniques and also manpower. Digitization projects have been important for university libraries aiming the digitization of manuscripts, theses, dissertation, special collections, which are special in nature. Preservation issues, copyright, intellectual copy right issues, bibliographic integrity, identification, standards are important issues to be kept in mind while proceeding digitization.

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About Authors

Ms. Binita Kalita, MLISC, Library Trainee Assistant in IDOL, Guwahati University, Assam.
E-mail: binitakalita11@gmail.com

Ms. Rekha Rani Saikia, MLISC, Librarian, Cambridge Public School, Maligaon, Boripara.
E-mail: saikia.rekharani@gmail.com