

COLLECTION, SERVICE AND DIGITIZATION PROCESS OF NATIONAL ARCHIVES OF INDIA'S LIBRARY: A STUDY

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ABSTRACT

The National Archives of India, NAI and has embarked on a large-scale document digitization initiative to preserve and improve access to archival collections. Storing and maintaining records in both physical and digital forms poses a major challenge to archival science. The purpose of this article is to illustrate how organization has used this approach to improve the preservation and access of archival resources. The study analyzes that on what bases the collection is being priority and methods, applied in the digitization process to highlight how digital information resources can be sustainably preserved and retrieved for the next generation. Data was collected through a detailed questionnaire.

Keywords: Digitisation, Archives, Digitisation Process.

1. INTRODUCTION

The word 'archive' is derived from the Greek word 'archeia', meaning 'public records'. We can define archives as the collection of records collected by a person or organization and selected for long-term preservation as evidence of past activities. Archives are primary source of information, most archives are written or typed by the creator, rather than printed by a publisher, which is why they are often referred to as manuscripts. Published material is retained only if used or collected by the person or organization in the course of their work and activities. India, being one of the oldest civilizations, has the largest collection of rare and precious manuscripts recorded in various forms as well as distinct languages and different scripts across the country. These heritage resources are collected, stored and preserved in libraries, archives, museums and temples, etc. Records of pre-European Indian history are kept in Indian state archives, private collections and religious houses, etc.

2. LITERATURE REVIEW

Machado et al. (2021) examines and verifies the conditions of digital organizational preparation to support the first steps of companies towards digital transformation. The findings are put into perspective of established change management theory and previous studies on digital transformation and digital organizational readiness assessments. Kaur (2015) discussed the need to digitize manuscripts related to the University of Punjab Manuscripts and the Punjab Digital Library starting in 2004. Sageer and Francis (2015) identified pathways and different methods to develop digital libraries for users and library materials are at stake. Attitude towards manual method. Sarasvathy (2014) drew attention to the role of the Indira Gandhi National Center for the Arts (IGNCA) in the digitization of library materials, especially manuscripts. For digitization, IGNCA used UNESCO guiding standards as well as metadata for all documents. Previously, IGNCA had microfilmed 2.5 lakh manuscripts with 20,600 rolls of which 17,087 were digitized and 13,803 were cloned. Londhe et al. (2011) mainly focused on the technical requirements and processing methods for the digitization of manuscripts adopted at Jayakar Library, University of Pune. This work explained the various technical steps to be applied to the digitization of manuscripts and the generation of metadata. Research shows the importance of software for capturing and processing images. In South Asia, the largest digitization initiative has been launched in India with the widest coverage of 21 digitization hubs, led by Dr. A.P.J. Abdul Kalam. It is part of a million-pound project. Besides; digitization of theses and dissertations, Indian journals, digitization activities of NMM and IGNCA were evaluated by Anup Kumar Das in his thesis in 2008. He commented that all these major programs should be regular assessment; Training and awareness raising should be provided to Indian researchers and scholars. He critically assessed NMM and IGNCA in preserving the collection of documentary heritage. The huge output of research results in Indian journals covering all areas of knowledge should be available internationally with high visibility.

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3. OBJECTIVE OF THE STUDY

National Archives of India has huge collection and has the oldest and precious collection of India, which holds the cultural importance of the country. Collection includes rare manuscripts, Gazettes 1792 onward, personal collections of eminent personalities and etc NAI's collection represent the history and culture of India to the world. Digitisation process has been started by the organisation of their resources at large scale to preserve and outreach their collection to the massive audience across the world. The study aimed to explore the methods adopted by NAI while conserving, digitizing, archiving, and providing access of these resources to users. In addition, it examines the evolution of digitization and archiving standards and practices followed for digital preservation and resource retrieval. This examine seeks solutions within-side the following areas:

- i) To study the process and infrastructure for digitization of collection.
- ii) To study the storage and retrieval procedure of digitized collection.
- iii) To identify different ways of accessibility to digitized collection.
- iv) To know the user's approach towards digitized collection.

4. METHODOLOGY

Methodology plays an important role in conducting any type of research. Scientific investigation involves the careful and appropriate application of research design. This study has opted a quantitative research approach to examine the digitisation process and retrieval of information by the users in NAI. Data is collected by structure questionnaire, observation and website of the organisation.

5. NATIONAL ARCHIVES OF INDIA (NAI)

The National Archives of India (NAI) is an agency of the central government responsible for identifying the records of various ministries, branches, offices including PSUs, corporations, commissions, commissions etc. under the Public Records Act 1993 and the Public Records Rule 1997. Currently, it has an archive of more than 47.8 lakh unique and valuable documents in the form of files, volumes, maps, invoices, treatise and manuscript, and 7500 rolls of microfilm. The collection is classified into four categories such as public archives, oriental archives, manuscripts and private documents. Established on 11 March 1891 in Calcutta (Kolkata) as the Imperial Records Bureau, the NAI is the largest archive in South Asia containing a wealth of valuable information for historians, officials, and historians. and interested people. The 125-year-old body contains priceless objects from Indian history, including maps, bills endorsed by the President of India, centuries-old Buddhist texts, treatises, rare manuscripts, oriental documents East, official documents kept by the East India Company, private papers documents, cartographic documents, important collections of gazettes and gazettes, census documents, debates councils and parliaments, forbidden literature, travel stories, etc. These records also shed light on later Mughal rule, the rise of the East India Company in India, colonial rule in India, the Indian struggle for freedom, as well as the growth and development in post-independence India. In addition to political and administrative history, the NAI archives provide information on India's socioeconomic history and scientific and technological advances over the years. These historic titles are of immense value to the nation and the global research community. In addition to the above documents, the NAI has a special archive that complements the information available in public documents. Library assets include a collection of government publications and reports, gazettes, local newspapers, and books on various fields. The NAI Regional Offices in Bhopal and the Archives Centers in Bhubaneswar, Jaipur and Puducherry also have a huge archive collection with research facilities available to scholars visiting these offices.

6. DISCUSSION AND FINDINGS

6.1 Electronic Records Management

The recent advancement of information and communication technology (ICT) has revolutionized the management of archives as they provide more efficient tools for preserving and retrieving archives.

ICT has integrated new ICT technologies to adapt to the new phenomenon of electronic management of archives. In response to the requirement of quick access to archival information, it also began computerizing its archives in 1998. Custom software named "Archive Information Management System 'AIMS'" was developed by the company. developed using Visual Basic in the front and MS Access in the back in 1998 for a stand-alone system but later in 1999. They updated the software in 2006 with support from the National Informatics Center (NIC) using ASP and MySQL RDBMS to operate and retrieve queries on the NAI Intranet through a web browser. The database contains more than 23 thousand records that can be retrieved by archivists, scholars, and users. It will soon be hosted online on NAI's website to be searchable worldwide. Additionally, NAI has computerized its library portfolio using LibSys software, but now plans to switch to open-source library management software KOHA soon, as work is in progress.

6.2 Digitisation Process and Methods

In 2000, NAI started an experimental project to digitize its collection of rare manuscripts, Bhagwat Gita, Ramayan, Mahabharata, etc. use a digital camera. After that, several other digitization projects were also launched to convert his files to digital format. To enhance its long-term digital preservation, a Memorandum of Understanding was signed with the "Advanced Computer Development Center (C-DAC), Pune" to carry out the mandate of the Act. public archive in 1993, for the first time.

For the digitization of archives, documents are selected according to the criteria specified by each archive, including rare documents, documents often requested by the researcher for reference, etc., after That sets the order of precedence for the collection to be stored Online. Outsourcing is a common practice for large-scale digitization projects to achieve goals within specified timeframes that organizations with their day-to-day responsibilities are often unable to do, it also requires expertise and specialized digitizing equipment.

NAI has hired outside vendors for the digitization work, but key archivists are involved throughout the project to oversee workflow, verify quality control, and meet regulatory requirements. technical requirements mandated by the agency. For example, a complete data warehouse for the digitization of archives is developed for the digitizer. After this exercise, OCR scanning and image transformation, including image capture, processing and cleaning, metadata generation, and more. In addition, these scanned and physical prints and similar records are cross-checked with inventory prepared for scanning. Finally, these digital copies of the file are stored online on portal sites, Abhilekh portal, an online search portal was launched by Dr. Mahesh Sharma, Hon'ble Minister of State for Culture and Tourism and Civil Aviation on 11 March 2015 on the occasion of 125th Foundation Day Celebrations. This search portal has been started by NAI to give access to its holdings. Abhilekh-Patal contains the reference media of more than 2.3 million files held by the National Archives of India and over 75490 digitized records are available for online access so far. This digit of digitized records is increasing with each passing day. To expand access to the archive's collections and reduce the impact of routine handling of old or fragile documents, "Ninestars" helps NAI digitize and maintain its most valuable collections. Ninestars will help create high-resolution surrogate representations of the Archive's digitized collections using enhanced optical character recognition (OCR) scanning and scanning for further analysis. In addition, we will help NAI index digital documents for easy retrieval of information. Scanned files will be uploaded to a DMS (Document Management System) which Ninestars will build to provide NAI records on a secure platform.

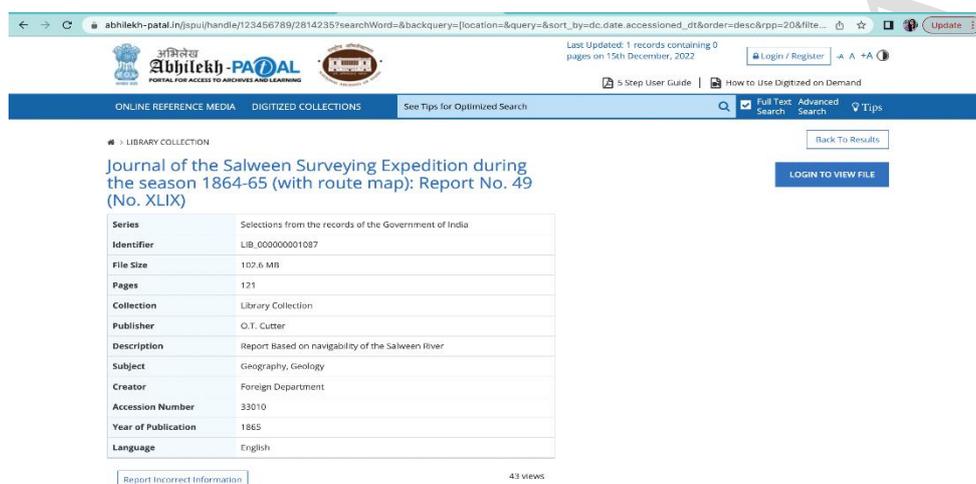
6.3 Digitization Preservation

The primary goal of digital preservation of archives is to enable digital access and preserve rare and fragile original documents for the future. The National Archives of India, longstanding archival institution that has adopted best practices for document collection and preservation and followed a scientific approach using new technologies for cleaning, repair, document handling, etc. reprint, microfilm, and digitize to preserve your print or similar collection through a process of prevention, cure, and recovery to prevent loss and prolong the life of your archives.

6.4 Metadata

Metadata refers to "data about data". It represents a detailed description of the underlying data in an object regarding the title, creation date and time, format, length, language, reference year, identity description, and object's purpose, etc. For long-term digital archiving, metadata refers to preservation techniques applied to digital objects in the archive. It facilitates end-user identification, location and information retrieval and provides information on the quality aspects or problems of the created object and its privileges/access rights and ensure smooth data management.

NAI records stored on the portal are primarily managed by the Dublin Core schema with descriptive metadata to describe online digitized content, structured metadata to demonstrate authenticity, and completeness. Its integrity, technical metadata - description of the hardware, software and processes used for digitization, and administrative metadata customized to meet the needs of the repository and also takes into account the need for interoperability between digital information systems. The case numbers are sorted by title consisting of the specified subject standard title, the case's serial number opened, the year the case was opened, and the section name/abbreviation.



The screenshot shows the Abhilekh Portal interface. The main content area displays a metadata record for a digitized document. The record is titled "Journal of the Salween Surveying Expedition during the season 1864-65 (with route map): Report No. 49 (No. XLIX)". The metadata is presented in a table format with the following details:

Series	Selections from the records of the Government of India
Identifier	LIB_00000001087
File Size	102.6 MB
Pages	121
Collection	Library Collection
Publisher	O.T. Cutter
Description	Report Based on navigability of the Salween River
Subject	Geography, Geology
Creator	Foreign Department
Accession Number	33010
Year of Publication	1865
Language	English

Below the table, there is a "Report Incorrect Information" button and a "43 views" indicator. The page also features a navigation bar with "ONLINE REFERENCE MEDIA" and "DIGITIZED COLLECTIONS" tabs, and a search bar with "Full Text" and "Advanced Search" options.

Fig. 1: NAI's Abhilekh Portal - Metadata Record for Digital Record

7. CONCLUSION

Digitization is an important issue, encompassing many different processes; equipment selection and the method adopted for conversion is very important among them. When it comes to material selection, organizations have developed a number of guidelines and standards. But many do not meet these standards. Since the digitized documents of many organizations are not available on the Internet, duplication of work is becoming a serious problem. Notable scanning problems are variations in scan resolution, different file formats and compression technical, resulting in an obstacle to information collection and recuperate. As file and program formats become obsolete, preserving the documents are not only concerned with maintaining the files but also with ways to keep them accessible. We must preserve programs and make sure they work well on new platforms or files must be converted to another format that can be interpreted by new programs.

REFERENCES

- Ahmed, A., Sharma, S. (2021) Digitisation of Archival Records at National Archives of India and Department of Delhi Archives: A Detailed Study of Methods, Standards and Protocols. NVEO, 8(5) 5169-5177.
- J. U. Igbeka and C.O. Ola (2009), The need for Digitization of Special Library Materials in Nigerian University Libraries.

- Kahle, Brewster (2017). Transforming our libraries from analog to digital: A 2020 vision. (n.d.). Educause. <https://er.educause.edu/articles/2017/3/transforming-our-libraries-from-analog-to-digital-a-2020-vision>
- Kaur, Harpreet (2015). Digital preservation of manuscripts: an Indian perspective with special reference to Punjab. 4h IEEE
- Keneley, M., Potter, B., West, B., Cobbin, P., & Chang, S. Digitizing Archival Records: Benefits and Challenges for a Large Professional Accounting Association. *Archivaria*, 2016, Vol.81, 75-100
- Londhe, Nagesh L., Desale, Sanjay K. & Patil, Suresh K. (2011). Development of a digital library of manuscripts. *Program*, 45 (2), 135-148
- Machado, C.G., Winroth, M., Almstrom, P., Ericson Obeg, A., Kurdve, M., & Almashalah, S. (2021). Digital organizational readiness: Experiences from manufacturing companies. *Journal of Manufacturing Technology Management*, 32(9), 167-182. <https://doi.org/10.1108/jmtm-05-2019-0188>
- Marcum, D., & Schonfeld, R.C. (2021). *Along came Google: A History of Library Digitisation*. Princeton University Press.
- National Archives of India. www.nationalarchives.nic.in
- Paul, S., & Singh, P.S. (2014). Digitization initiatives and special libraries in India. *The Electronic Library*, 32(2), 221-238. <https://doi.org/10.1108/el-02-2012-0022>
- Perry, S. R. (2014) Digitization and Digital Preservation: A Review of the Literature. *School of Information Student Research Journal* 4(1), 1-12.
- Routhier Perry, S. (2014). Digitisation and digital Preservation: A Review of the literature. *School of Information Student Research Journal*, 4(1). <https://doi.org/10.31979/2575-2499.040104>.
- Sarasvathy, P. (2014). Role of IGNC in digital preservation of manuscripts: an over view. Retrieved 15th July 2016 from: <http://eprints.uni-mysore.ac.in/16671>
- The National Archives and Records Administration (NARA). Plan for Digitizing Archival Materials for Public Access: 2007-2016. 2014, <https://www.archives.gov/files/comment/nara-digitizing-plan.pdf>
- Yang, Sharon & Li, Lili. (2016). Evolving Digital Library and Library Digitization, *Emerging Technologies for Librarians* (pp.69-102).