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CREATING THE DIGITAL LIBRARY: MSU CENTRAL LIBRARY EXPERIENCE

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Abstract: Digitization of library collections is one of the long-term strategic tasks of modern libraries, regardless of their organizational subdivision.

Libraries, by digitizing collections and extending access to e-resources, fulfill a significant social mission of providing open access to knowledge and cultural values. There are a lot of theoretical approaches and practices on electronic collection building. Each library has its own specificity in achieving this objective, defined by the structure and content of the traditional collection, the quality of the scanning equipment, the technical and technological complex, and the staff qualifications involved.

This article describes the experience of the Moldova State University (MSU) Central Library, on the implementation of the Digital Library project funded by the Government of Japan within the "Kusanone" Culture Grants Program.

The main purpose of the Digital Library is to preserve the cultural-scientific heritage existing in the MSU Central Library. The main purpose of establishing the Digital Library is to store and preserve the cultural-scientific heritage existing in the MSU Central Library.

Following the legal framework on the digitization of the documents, the existing experience in the field, the USM working group set the stages, the organization and development processes of the Digital Library, which included: identification of priorities for the digitization of the collections; setting criteria and selection of documents to be digitized; development of the working methodology; equipment identification and acquisition; creation of the digital content; Digital Library implementation and management.

The digital library is organized in collections: old and rare books, old periodicals, church books.

The **MSU Publications Collection** represents the scientific heritage, created under the patronage of Moldova State University since its foundation (1946) until 1991, including: conferences, symposia, monographs, didactic and methodical documents, periodical publications.

The development of the Digital Library will expand access to information, will contribute to the promotion of heritage collections at national and international level, offering users a modern way of consulting documents, in line with new technologies.

Keywords: Digital library, digitization, collections, documents, conservation, preservation, heritage.

JEL Classification: D83; I23; L86

1 Introduction

Digitization is the process of converting books, maps, newspapers, and other types of documents from their physical form into digital formats. This transformation goes beyond merely preserving documents; it also enables new ways of accessing information. In this sense, digitization facilitates access to information, ensures the longevity of heritage documents, and extends the library's reach beyond its physical boundaries.

A digital library (also called "an online library", "an internet library", "a digital repository", "a library without walls", or "a digital collection") is an online database of digital objects that can include text, still images, audio, video, digital documents, or other digital media formats or a library accessible through the internet. Objects can consist of digitized content like print or photographs, as well as originally produced digital content like word processor files or social media posts. In addition to storing content, digital libraries provide means for organizing, searching, and retrieving the content contained in the collection. Digital libraries can vary immensely in size and scope, and can be maintained by individuals or organizations. The digital content may be stored locally, or accessed remotely via computer networks. These information retrieval systems are able to exchange information with each other through interoperability and sustainability (Digital library, 2024).

The IFLA/UNESCO Manifesto for Digital Libraries defines a digital library as an online collection of quality-assured digital objects that are created or collected and managed according to internationally accepted principles for collection development and are accessible in a coherent and sustainable way, supported by the services needed to enable users to retrieve and exploit the resources (IFLA/UNESCO Manifesto for Digital Libraries, 2019).

This paper presents the experience of the Central Library of Moldova State University (MSU) in the realization of the project to establish a Digital Library. The MSU Central Library holds a vast institutional cultural and scientific heritage, including a valuable collection of old and rare books.

2 Implementation of the project

The goal of the proposed project is to preserve, promote, and expand access to the cultural and scientific heritage of the MSU Central Library.

To achieve this goal, the following objectives have been identified:

- Digitizing the heritage collections held by the MSU Central Library;
- Promoting the written cultural and scientific heritage at both national and international levels;
- Preserving original documents;
- Expanding and improving access to documents;
- Providing a modern way to consult documents in line with new technologies.

The implementation of this project was made possible by a grant offered to Moldova State University in early 2023 by the Government of Japan under the "Kusanone" Culture Grants Program. The grant, totaling 70,814 USD, enabled the acquisition of the necessary technical equipment and the establishment of the Digitization Laboratory. Regarding project management, it is important to note that this process has gone through several distinct stages.

STAGE I: Creation of the working group

At this stage, library staff (9 librarians) and IT specialists (2 persons) were identified and involved in achieving the project objectives. In selecting the librarians, certain criteria were considered: willingness to participate in this type of project, level of qualification, in-depth knowledge of the

collections, particularly old and rare books, as well as openness and the ability to learn new skills related to scanning and data processing.

Tasks and responsibilities were distributed as follows: some librarians were responsible for selecting and preparing documents for the digitization process, others handled document description and metadata creation, while 3 librarians received training and were directly involved in scanning and processing the digital files. The core task of the IT specialists was the creation, development, and maintenance of the digital library web portal.

STAGE II: Documentation

The working group studied the legislative and regulatory framework relevant to the project, including legislation on copyright and related rights, as well as standards, regulations, and technical guidelines necessary for the digitization process. The group also examined the experiences of similar projects implemented in other institutions, both in Moldova and abroad.

STAGE III: Digitization priorities

At this stage, specific decisions were made regarding the identification and establishment of priority collections to be scanned and digitized. These include the institutional collection, which consists of documents published by MSU, with authorship and copyright predominantly belonging to Moldova State University. It was also decided to digitize documents from the collection of old and rare books, specifically those published before 1920.

STAGE IV: Document selection criteria

After identifying the priority collections for digitization, the working group analyzed and established the selection criteria for the documents to be digitized, considering several elements: heritage and documentary value, representativeness of the document (within a specific field or time period), degree of interest and accessibility, preservation of original documents, and legal aspects related to authorship and copyright.

STAGE V: Working methodology

To ensure a well-organized process for transforming documents into digital format, a working methodology was established. In this regard, a Route-map for the document in the digital library was developed, outlining several phases (Figure 1). The Route-map reflects the path of the document from its identification for digitization based on the established criteria to its integration with the PrimoLibUniv electronic catalog.

STAGE VI: Setting up the digitization laboratory

At this stage, was identified and acquired the necessary technical equipment for document digitization. In this sense, was established the Digitization Laboratory and equipped with high-performance equipment, including three scanners with A2 and A3 scanning capabilities, three high-performance computers, a server, and an uninterruptible power supply.

STAGE VII: Librarians' training and document scanning

The training of the involved librarians was conducted practically in parallel with the document scanning process. The librarians learned how to scan and process the digital files of the scanned documents. The first documents to undergo digital transformation were the university periodicals "Ученые записки МГУ," "Труды МГУ," and the MSU institutional newspaper, all preserved in the library collections since 1949. In addition to the periodical publications, documents from the collection of old and rare books, selected by the working group according to predetermined criteria, were also submitted for scanning.

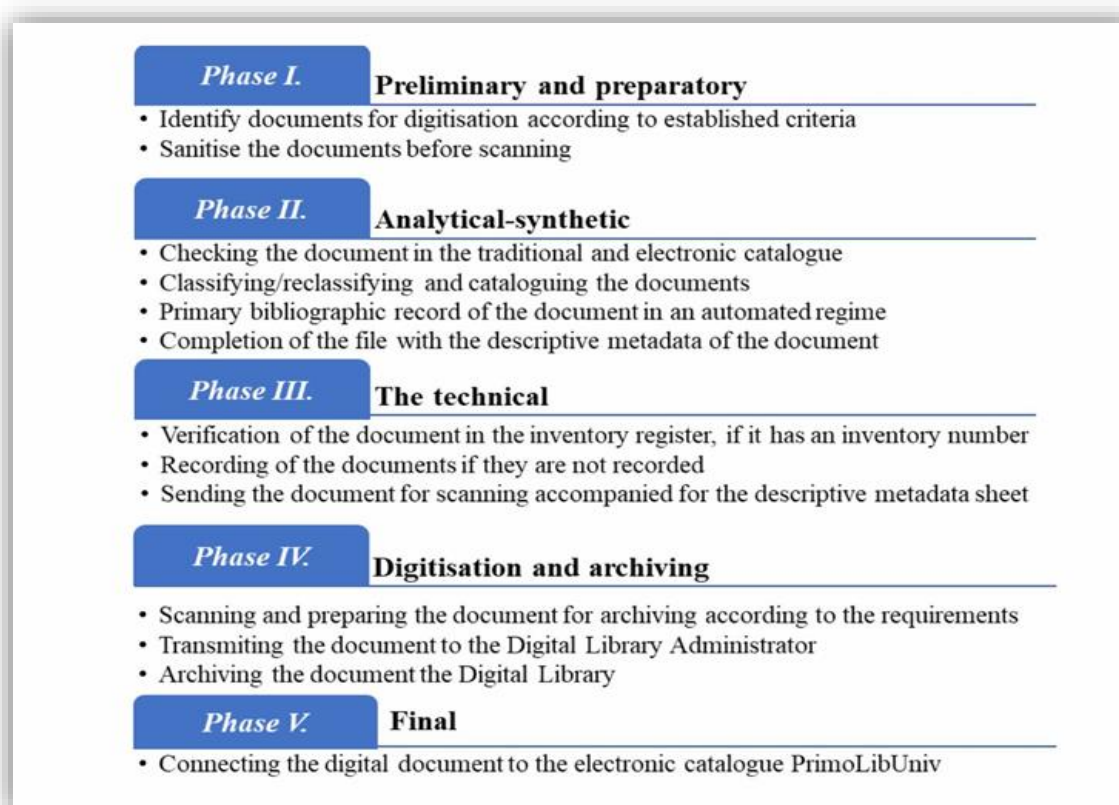


Figure 1 The Route-map of the document in the digital library

Source: Elaborated by authors

STAGE VIII: Elaboration of the Digital Library structure, interface and access.

At this stage, librarians and IT specialists worked together. Was opted for a hierarchical structure of the Digital Library and placement on a web portal. The digitized documents are organized into four main collections, which are further divided into subcollections. (Figure 2).

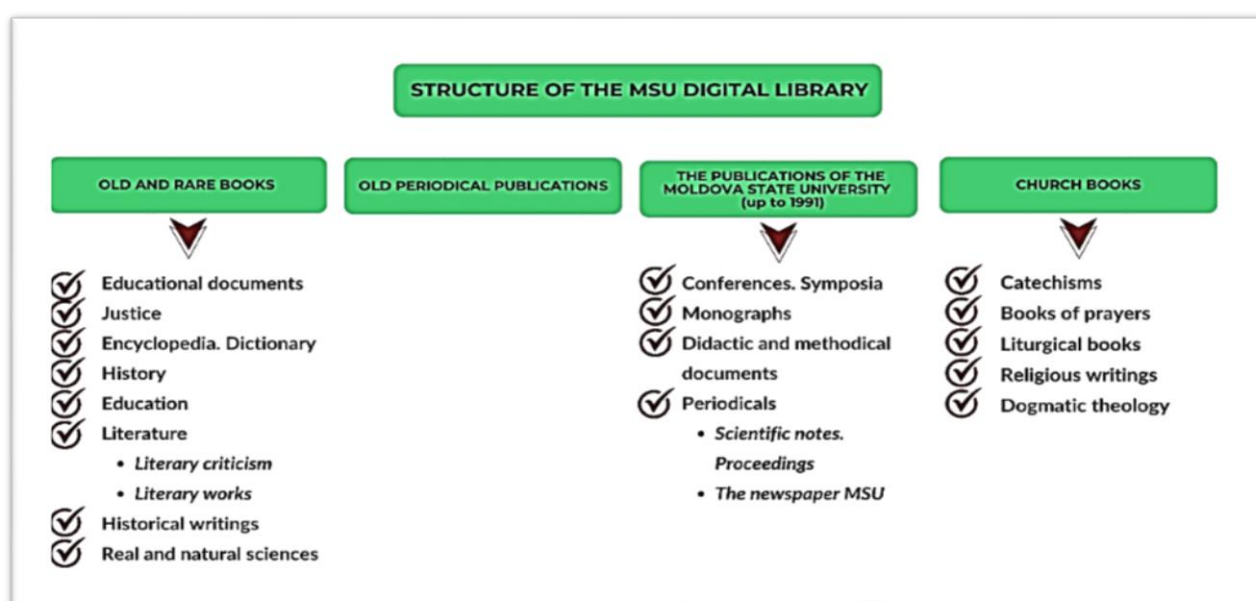


Figure 2 Structure of the USM Digital Library

Source: Elaborated by authors

Documents are archived and available in PDF format, accompanied by a comprehensive set of metadata. The creation of metadata is one of the first step librarians take in the digital transformation of documents.

Metadata are important components in the development of a digital library, as they describe the content and attributes of the digital sources, enabling searches by author, title, subject, topic, and other criteria. Metadata developed according to established standards ensures the interoperability of the Digital Library with other systems (Table 1).

Table 1 Descriptive metadata

| ELEMENT | STATUS |
|--|--|
| Title (written on document) | Obligatory |
| Author/ Other mention of responsibility | Obligatory |
| Contributions | Obligatory |
| Place of publication | Obligatory |
| Publisher | Obligatory |
| Year of appearance | Obligatory |
| The physical description. Number of pages | Obligatory |
| The text language | Recommended |
| The domain | Obligatory |
| Subject/Thematic | Obligatory |
| Provenance | Recommended (<i>The collection it belongs to</i>) |
| Bibliographic description | Obligatory |
| Holder | Obligatory |
| Document type | Obligatory |
| The format of original document | Obligatory |
| Creation date | Recommended |
| Notes (information about autographs or notes) | Recommended |

Source: Elaborated by authors

An important moment to highlight is the integration of documents from the Digital Library with the PrimoLibUniv electronic catalog, which improves the visibility of these heritage documents.

The Digital Library can be accessed through the interface of the USM Central Library webpage at <https://library.usm.md/> or by directly visiting the Digital Library portal at <https://dlib.usm.md/>.

3 Findings and Conclusions

The project for the creation of the MSU Digital Library, started in the beginning of 2023, is a long-term ongoing project. To ensure the sustainability of the project it is necessary in our opinion to undertake the following actions:

- Continuation of work on digitization of documents and development of the Digital Library platform;
- Systematic training of staff involved in the digitization of collections;
- Elaboration of the policy for the development of the Digital Library;

- Development of guidelines/recommendations on digitization of heritage collections (regulatory framework, document selection criteria, technical requirements for hard and software resources, presentation of metadata, etc.).
- Collaboration with the National Digitization Centre of the National Library of the Republic of Moldova;
- The cooperation of institutions that have heritage collections.

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