

# NBU Digital Collection “Bulgarian Cultural Heritage Materials”

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**Abstract.** Our experience in maintaining digital collections is described, which urged us to go deep in the process and build centralized digitalization policy. It instigated developing new strategy, adopting new technological solutions and staff training. The emphasis falls is placed on our digital collection “Bulgarian Cultural Heritage Materials” as an example of a focused digitization at the New Bulgarian University (NBU) Library and our answer to modern trends in launching digital collections. Our future digitization plans are also discussed.

**Keywords:** NBU Digital Collection, Risk and Long-term Preservation of Cultural Heritage, Metadata Representation, Usability and Searchability of Library Collections

## 1 Introduction

Preservation of traditional materials became more successful and systematic after libraries, archives, museums and all the institutions, engaged in preserving cultural, intellectual, and scholarly resources, integrated digital preservation into overall planning and resource allocation.

The challenge of digital preservation is to establish a sustained program for digitization to answer the following basic issues and cover both user and institutional needs: 1) Planning and resource allocation 2) Quality of digital copies – including unified standards for scanning, processing, visualization and metadata representation; 3) Legal frame – a good sense of global and local legal requirements and restrictions and legal guarantee of dissemination, access and use of digital items and their metadata; 4) Solid financial, technical, and expert background; 5) Monitoring of digital collections – to keep track of usability and the development of the digitization.

As we will show in this paper, the first experience of the New Bulgarian University Library (NBU Library) in digitizing was not following any conceptualized frame, but was occasional and focusing on the specification of separate collections. Fast enlargement of number of digitized items and diversification of digital collections alarmed that the process needs to be regulated. We experimented with the NBU digi-

tal collection “Bulgarian Cultural Heritage Materials” and adopted the first detailed digitalization strategy for the Library.

## 2 Digitization as Necessity

The NBU Library has conducted a digital preservation, and long-term access to several collections to answer specific needs of user target groups, space and usage issues.

*Digitization of records from vinyl plates and videotapes.* In 2005 it turned out that the Library considerable amount of classic music plates and a small collection of videotape with educational and science films, actually dropped from usage statistics, as very few customers nowadays possess the corresponding devices to play them. Therefore, the first digital collection of the Library originated.

*Users with visual impairment needs.* To answer needs of users with visual impairment, we equipped a specialized working place and formed digital collection of scanned monographs and periodicals from the Library holdings. Copies are freely available to end users upon request. Additionally, some items from the “Most Used Titles” were adopted for the needs of our visually impaired customers. Some digitized items, from the collection of visually impaired users migrated to the “Most Used Titles” collection.

*User needs.* We started locally to digitize most issued titles, ranked on usage statistic reports from our library information system EOS Web. Titles in the collection “Most Used Titles” are of great interest but offprint, damaged or single copies. Collection is accessible only in the local network. Another digital collection “Course Materials” was developed out of lecturers’ practice to provide supporting paper materials for courses. Digitized titles were content-evaluated by lecturers.

Easy access to the materials in these two collections is provided from the Library web site and the Library OPAC. The collections were managed as separate sites (html pages), corresponding to the institutional web site design, alphabetically listed, starting with Cyrillic titles. Each title is a single PDF file, stored locally. The PDF files from these collections were initially recognized, manually revised and additionally formatted after scanning, pursuing the goal to have fully searchable and resized files. In commitment to copyright issues, items are available in full text, in a protected file format, within the local network and only parts could be reproduced.

*Physical preservation.* With the representation of part of materials from the donated collection of Acad. Vera Mutafchieva, digitization developed toward conceptualization, detailed planning and accomplished project.

A collection of rare and valuable materials has been donated from the period of the Ottoman Empire and Orient. Bibliographic data was immediately available through our OPAC, and gained vast specialist interest. Library staff was concerned how to guarantee its physical preservation and, at the same time, open it to the public. After consulting the titles with representatives from the Mediterranean and Eastern Studies Department at NBU, selected items of scientific and research interest were digitized. Language-specific constraint prevented the OCR recognition of initial texts.

*Results.* So far the digitizing progress of the Library might be described as sporadic, based mainly on digitizing texts and instigated to meet specific access or preservation needs. What we have achieved so far is that: 1.) First digital collections were locally stored and administered; 2.) The collection of movies and music is represented on CD/DVD of high quality records, which can be loaned instead of the original storage media. Upcoming in 2013 is the migration of the collection to managing digital collections platform; 3.) Digital materials for users with visual impairment were automatically recognized and recorded in text or sound file format (\*.txt, \*.wave, \*.mp3, etc.). The records are in poor quality and digitized materials are planned to be reviewed in order to be uploaded to a platform; 4.) Items from the “Most used titles” are in a migration progress, which is to end September, 2012; 5) Course materials are also to be fully uploaded in the end of November of the corresponding year.

In order to preserve digital materials on a scale commensurate with mass storage capabilities and in formats that are accessible and usable, it is necessary to articulate some basic requirements: 1) To acquire OCR recognition, where possible and raise searchability; 2) To compress files and speed up visualization; 3) To ease navigation within file content and raise accessibility.

Experience in digitizing resulted in the preparation of a precise scan instruction, but still some technological, administering and access issues remained. 1) No copyright maintenance on item level; 2) No usage statistics on item level; 3) Difficult navigation - lack of search algorithms, though the files are in searchable PDF format. Texts, etc. information is block represented; 4) Unacceptable level of data and file administration of digital collections – affecting searching, usage and access, due to lack of a compatible platform; 5) No synchronization between metadata from the OPAC and the digital object.

The Library was soon forced to develop and sustain long-term policy of digital preservation, focusing on access and usability of items.

### **3 Digitization Policy. NBU Digital Collection “Bulgarian Cultural Heritage Materials”**

*Solid financial, technical and expert background.* Our short-term strategy has been orientated toward testing of maintenance platforms (paid and open-source). We were stimulated to choose the DigiTool software of ExLibris for its functionalities: 1.) User-friendly interface; 2.) Easy administration; 3.) Hierarchical structure of collections and sub-collection, allowing succeeding content actualization; 4.) Multi-level accessibility; 4.) Formats compatibility (PDF, .doc, .txt, .avi, mp3, jpg, etc.)

Our choice of DigiTool platform was predefined. In 2010, Foundation “National Academic Library and Information System” (NALIS) and NBU agreed to cooperate in the establishment of a single access portal to the library and information resources of the Bulgarian libraries and started the most large scale project, realized on national level. The NALIS Foundation has already chosen DigiTool, where license grants administering privileges, technical support, digital collections audit and staff training.

With the implementation of the platform and continued exploitation of scanners and specialized software, not to mention the continual training of expert staff, the digitizing procedure of the Library has been warranted technologically and expertly.

The existing digital collections have been transferred to the new DigiTool platform as a first stage of our long-term digitization strategy.

*Determining the project's line. Clarifying project's goals. Selection of documents.* We were aware of diverse projects, initiated on different levels – global, European, national, institutional. The global tendency to promote preservation and wide-open access to world cultural heritage provoked our Library to join in with relevant initiative.

The NBU Library does not hold cultural and historical artifacts and is not bound to preserve cultural and historical monuments and objects, but in our collections could be found detailed research and documentary data, promoting Bulgarian cultural heritage. The new digital project was inspired also by the objective of the Library to assist and stimulate research and educational activity at NBU. For example, as a result of the mutual cooperation between the Library and the History of Culture Department, the course “Cultural tourism” was highly acknowledged, due to the supporting reference list of specific and specialized resources in the field, provided by the Library.

In coordination with representatives from the Department, selected titles from the donated collection of Assoc. Prof. Magdalina Stancheva were ranked to start the NBU digital collection “Bulgarian Cultural Heritage Materials”. This was not a casual decision. Magdalina Stancheva was proclaimed “the Chief Sofia archeologist” – she has been chosen a curator at the Sofia Museum, the National Art Academy, and not to the least, she has designed the course “Cultural heritage” at NBU. For a successive 12-year period she stood as the Bulgarian delegate to the UNESCO Committee World Heritage and consecutively became its vice-president.

The project objectives are clearly stated: 1) Popularization and promotion of Bulgarian archaeological, cultural and historical artifacts; 2) Digitization of Library materials and providing access to the digital copies and their metadata; 3) Achievement of educational goals; 4) Wide-open access to materials with specific form (post cards, travel guides, promotional leaflets, brochures, etc.); 5.) Access to single copies; 6.) Long-term preservation of the original items.

*Quality of digital copies.* We have to acquire specific competencies on digitizing nomenclature of non-text resources. In consultations with specialists from Institute of Mathematics and Informatics (IMI), Bulgarian Academy of Sciences (BAS), the Digital Centre of the National Library, NALIS Foundation experts, after referring to the Digitizing instructions of the Archives State Agency, the Europeana, IFLA, the Library of Congress codes of digitizing, Library technical staff developed a set of instructions on scanning and technical processing of graphical paper originals. The second working group of specialist was filling the gap in instructions and recommendation on metadata representation and revision of MARC21 bibliographic records of the items in the Library information system EOS Web. The achieved synchronization in their work allowed the creation of a detailed time and task table per staff unit, which is a prerequisite for succession of the project.

Copyright and legal requirements of distribution, access and use of digital objects were also examined. Each digital object is verified with watermarks, representing the NBU Logo and end users have to fill copyright statement of fair use. Watermarks are demonstrated in attached record samples of digital objects.

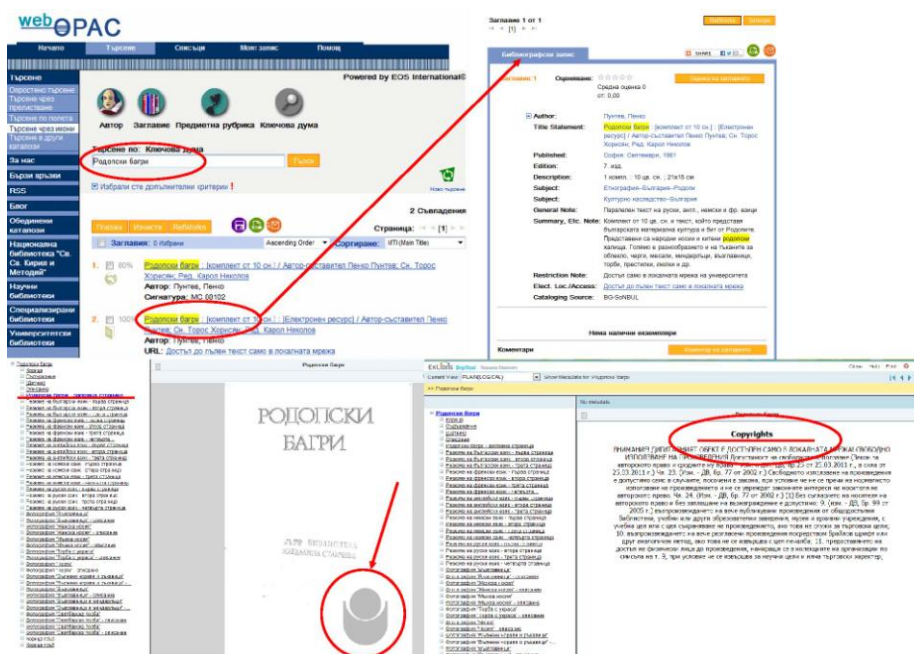


Fig. 1. Digital object

Monitoring of NBU digital collection “Bulgarian Cultural Heritage Materials” has not been performed yet. The collection is at its very initial stage of development and the Library team is working in direction of compiling critical mass of diverse digital objects. This is the first time when the digital collection is officially presented.

#### 4 In Conclusion, NBU Library Ideas about Digitalization

First monitoring would be carried with the usage and accessibility measuring tools in DigiTool. Further directions of development could be stated after the first level of evaluation and appraisal. The presented digital collection of NBU Library materials promoting Bulgarian cultural heritage will continue to develop by adding new titles. All, initially selected, 68 titles would be available through DigiTool in September, 2012. We expect in 2013 to add more than 173 new titles. This is the first collection that is directly uploaded in DigiTool.

Administering the collection helped us to build: 1) Considerably sustained digitization policy and detailed instructional and competence apparatus; 2) Long-term durability, based on international standards and practices; 3) Expert team with high ground

of technical, legal and information skills and knowledge; 4) Focused team with new projects and innovation commitment.

To answer further challenges in the field and to be able to guarantee the consistent and compatible changes in our digital preservation policy we shall continue to sustain development and enrichment of existing collections, as well as adopting expertise and successful practices in launching new digital collections – Theses and Dissertations and Former Communist Period Materials Collection. Theses and dissertations are deposited on CD/DVD from 2005, following national requirements. In 2011 the NBU library has started digitizing theses on paper and we expect to finalize in October, 2012. When a critical mass is accessible through DigiTool we are going to make preliminary tests and check the consistency and accessibility of digital collections. We expect to continue to develop new digital collections and enlarge the existing ones.

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