

Serbia and Montenegro

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This text is an introduction to digitization initiatives in Serbia. We will present three digitization attempts – the first one concerns a collaboration of the leading cultural and research institutions involved in digitization. Then we describe some of the activities performed in National Library of Serbia, while, at the end, we mention efforts of a non governmental organization from a small city in the central Serbia.

National Center for Digitization

Numerous institutions from Serbia are in possession of a large number of scientific journals and rare books, archive documents, textual and image data, as well as the other cultural and scientific values. Recently, important efforts were made to digitize, preserve, describe and index the cultural and scientific heritage. All those attempts were very interesting and with concrete outputs, but on the other hand they lasted as long as they were financially supported, and in almost every new project people started from the beginning and found their own ways to do digitization. It resulted in ad hoc approaches, incompatibilities, no clear notion of future use, and not to mention in wasting time and money. Realising that the best way to overcome those shortcomings is to start coherent and continuous digitization activities, the Mathematical Institute of Serbian Academy of Sciences and Arts (Belgrade) initiated organizing the National Center for Digitization (NCD, www.ncd.matf.bg.ac.yu) in 2002. At the present state, the NCD-consortium includes Mathematical Institute and Archaeological Institute of Serbian Academy of Science and Art, Mathematical faculty Belgrade, National Library of Serbia, National

Museum Belgrade, Archive of Republic Serbia, Serbian Institute for Monument Protection and Yugoslav Film Archive. Representatives of these leading cultural and research institutions form the Main Committee of the NCD.

The main subjects of the cooperation are the following:

1. Coordination of efforts of institutions involved in the cultural and scientific heritage digitization
2. Establishing and promoting a national strategy for the cultural and scientific heritage digitization
3. Exploring, adaptation and implementation of international standards and protocols for the cultural and scientific heritage digitization and preservation at the national level. Development of new standards in areas where they do not exist
4. Launching the cultural and scientific heritage digitization and making plans for possible migration process to new formats and technologies for already digitized data.

These goals should be obtained through the activities of the NCD. Some of the activities are:

1. Forming expert groups for specific fields of interest (groups for museums, libraries, archives, monument protection, standardization, data protection, etc.)
2. Establishing, at the national level, a basic set of standards in the area of digitization of cultural and scientific heritage
3. Developing models of the appropriate distributed information systems and specific software for the realization of the digitization standards
4. Connecting cultural and research institutions included in the digitization project into a particular Internet

subnet and developing a network of information and WWW-servers

5. Securing long-term storage and maintenance of the digitized heritage
6. Organizing continuous, persistent and systematic work on the cultural and scientific heritage digitization
7. Training collaborators from cultural and scientific institutions
8. Collaboration with the similar institutions from abroad.

The activities illustrate the multidisciplinary character of the NCD. For example, the issue of standards in the area of digitization of cultural and scientific heritage concerns metadata, digital data storage formats and data structure for different kinds of objects (pictures, sound, video, electronic publications containing plain and mathematical texts, etc.), designing and managing local data bases of cultural and scientific institutions, protocols for access to the digitized data including some uniform middleware and end-user interfaces for all types of information resources, rights management, thesaurus, search procedures, tools for storage, processing and presentation of the digitized data, digitized data protection including access restrictions, data authentication, etc. During the digitization process, models of a distributed information system for digitized cultural and scientific heritage and specific software which obey the above standards should be developed. The models should allow dissemination and wide access over Internet to cultural and scientific values that at the present are not easily accessible. These systems should be mutually compatible as much as possible.

In 2002, NCD established a journal, called «Review of the National Center for Digitization», which is published both in electronic (www.ncd.matf.bg.ac.yu/?page=publications&lang=en) and in printed form. The journal publishes papers concerning all aspects of digitization of cultural and scientific heritage. Several prominent researches from abroad have been involved in the journals' editorial board. So far five volumes have been issued. The published papers are in Serbian and/or English. Three annual conferences under the name "New Technologies and Standards: Digitization of National Heritage" where organized since 2002 (www.ncd.matf.bg.ac.yu/?page=conferences&lang=en) presenting experiences with new technologies, standards and the other fields in the area of digitization. The last conference was international with more than 20 participants from abroad.

International cooperation is one of the priorities of NCD. In 2003, NCD started cooperation with colleagues from Institute of Mathematics and Informatics of Bulgarian Academy of Science. It was formulated in the so-called Borovets declaration (2003, www.ncd.matf.bg.ac.yu/?page=news&lang=en&file=declaration.htm), a text concerning the future development of a network for digitization of scientific and cultural heritage in South-Eastern Europe. The Declaration stated that «[the researchers and the heritage institutions from the region] face common problems and share common scientific and cultural heritage. The knowledge and experience of single institutions from our countries should not stay isolated. It is of great importance

to take measures for increase of the communication and exchange of technological expertise, standards and practical skills within the region, taking into account the experience of colleagues outside the region». Along these ideas, an initiative called the South-Eastern European Digitization Initiative (SEEDI, www.ncd.matf.bg.ac.yu/seedi/) was started in 2004. The idea of SEEDI is to overcome that by bringing together computer scientists and information technology researchers, scholars in the arts and humanities, social sciences and history doing research on digital cultural heritage objects, archivists, librarians and curators responsible for the preservation of and permanent access to digital cultural and scientific heritage, etc., from regional and European centers having similar scientific and practical interest in digitization and to support cooperation between them. The aim is to create groups of specialists, which will be able to consult, assist, monitor and develop innovative technologies and digitization projects collaborating with the local heritage institutions. So far SEEDI has involved partners from 14 countries. SEEDI would be implemented through several measures: conferences and workshops, the journal «Review of the National Center for Digitization», the mailing list etc., to facilitate dissemination and sharing each other's ideas, concerns, views and experiences in the field. It is planned that the First SEEDI Conference will be held in Ohrid (Macedonia) under the name «Digital (Re-) Discovery Of Culture (Physicality Of Soul)» «during the first week of September 2005 with the following topics: dance, music, playing (edutainment) and manuscripts (www.ncd.matf.bg.ac.yu/seedi/events/seediConference.html).

NCD signed the cooperation agreement with MINERVA in 2004.

Activities in National Library of Serbia

National Library of Serbia has launched a few digitization projects and opened the new Digital Library Department during 2004. There are about 250,000 digital images (beginning of 2005): children's books, printed catalogues, printed bibliographies, specialized periodicals, newspapers, articles, as well as 470 digitized gramophone records on 78 rpm.

As a part of International Children's Digital Library project, the National Library of Serbia made Serbian Children's Digital Library with 130 books, available with interactive interface on the address:

www.digital.nbs.bg.ac.yu/decije/.

Digitization of old gramophone records on 78 rpm with Serbian and international music is another project of the National Library. Every record has 4 digital formats, while examples could be listened from the page: www.nbs.bg.ac.yu/collections/index.php?id=3632. The collection of medieval manuscripts and early printed books and incunabulae containing about 400 units, entered in digitization process.

The results are presented on the address:

www.digital.nbs.bg.ac.yu/rukopisi/index.html.

Digitization of daily press is the first project in this field, launched for the reason of protection. Newspaper *Politika* is microfilmed and digitized from the first year 1904 to 1945. These numbers are searchable in the location:

www.digital.nbs.bg.ac.yu/novine.html.

In the framework of Retrospective conversion Project, 14 volumes of the *Printed Catalogue of Books on Languages of Yugoslav Nations and Nationalities* for the period from 1868 up to 1972 are completely digitized and accessible on the web page

www.digital.nbs.bg.ac.yu/katalozi.html.

The same page contains digitized printed catalogue of books 1519-1867, and 16 volumes of digitized Serbian retrospective bibliographies for books for the period 1868-1944.

Special collections of National Library of Serbia are digitized partly, for the purposes of virtual exhibitions. Virtual exhibition: *Europe on the old postcards* could be browsed on the page

www.nbs.bg.ac.yu/events/event.php?id=4532.

The part of Poster collection is presented through the virtual exhibition: *First poster world war*, accessible on the page:

www.nbs.bg.ac.yu/events/event.php?id=6062.

Prints collection from Sveta Gora is available on the page

www.nbs.bg.ac.yu/events/event.php?id=4710.

Activities of the NGO Internet Club

One of very few NGO's which performs the continuous process of digitization is the Internet Club in Ljig www.internet.org.yu. It pertains to a relatively small community of a population of 4,000 near Belgrade. This organization of enthusiasts works mostly with libraries, and its web portal www.biblioteke.org.yu is the only network of public libraries in Serbia. The most significant digitization activity concerns developing of on-line available bibliographical databases which can be found at:

www.biblioteke.org.yu/vranje/demo.html and

www.bibliotekasabac.org.yu/trazi2.php. Those databases make literary heritage more accessible, while the quality of offering library services to the public becomes more complete.

