

# PROFESSIONAL VISIT TO THE GERMAN NATIONAL LIBRARY FRANKFURT

October 30 – November 5, 2010

## PROFESSIONAL REPORT

My professional visit to the Deutsche Nationalbibliothek (German National Library) in Frankfurt, from October 30 – November 5, 2010 was realised owing to the grants received by the BI-International (Bibliothek & Information - International Committee of the German Library Association [www.bi-internationala.de](http://www.bi-internationala.de))

During five workdays of my visit I was introduced to general aspects of German National Library in Frankfurt and in particular core information system and projects related to digital aspect of library work. During my visit I had chance to meet and collaborate with more than ten colleagues mostly from the IT department. Help and support in detailed planning of my professional visit and contacts with German colleagues were given by Ms. Margot Niemietz, one of the colleagues from the IT department in Frankfurt.

General purpose of my business trip was to learn more about information technology implementations and future tendencies of IT development in visited library to get a broader and clearer perspective of future concepts in information technology implementations in National Library in my country. Also one of my goals was to transfer acquired knowledge to my colleagues in Serbia, and to apply some of the solutions incurred from experiences of my visit in National Library of Serbia where I have a position of System Administrator in IT department. In addition I was interested in the server infrastructure (hardware and software), services on network and in particular Directory services, implementation of Help Desk and First-level-support and concepts of systems to digitize data and public access to digitized data.

The German National Library is the central archival library and national bibliographic centre for the Federal Republic of Germany. Its task, unique in Germany, is to collect, permanently archive, comprehensively document and record bibliographically without gap all German and German-language publications from 1913 on, foreign publications about Germany, translations of German works, and the works of German-speaking emigrants published abroad between 1933 and 1945, and to make them available to the public. The German National Library maintains co-operative external relations on the national and international level. For example, it is the leading partner in developing and maintaining rules and standards in Germany and plays a significant role in the development of international standards.

The German National Library was preceded by several institutions: the Deutsche Bücherei Leipzig founded in 1912, the Deutsche Bibliothek Frankfurt founded in 1947. The

Deutsche Musikarchiv was founded in 1970 and operates as a department assigned to the Leipzig site. On completion of the 4th extension it, too, will move to Leipzig. On the occasion of the German reunification these institutions were brought together to form "Die Deutsche Bibliothek", which in 2006 obtained both an expanded legal mandate and a new name: Deutsche Nationalbibliothek (German National Library).

The Frankfurt site of the German National Library is founded latter and so it doesn't contain so much old and rare media but on the other side this site is responsible for the development of information and communication technology, including development and management of the central database. It handles the production, marketing and distribution of [national bibliographic services](#).

The Frankfurt site of the German National Library holds 8.3 million media, including 4.5 million books.

I will focus my comparison of German National Library and National Library of Serbia on information and communication technology since this was my field of research and gaining experience.

My first impression about the institution I came in was highest level of consciousness about preservation of written and audible heritage in combination with contemporary technology.

In terms of information and communication technology development German National Library is one of the leaders in establishing new library standards. I had a chance to meet implementations of these standards on their spring on Frankfurt site of German National Library.

National Library of Serbia with all effort to develop modern information infrastructure, communication and collaboration system is in all aspects more than one step behind German National Library. Current projects in field of information systems and digital data management in Germany can be understood as good perspective for future developments in Serbia.

At the beginning of my visit I had a guided tour through Deutsche Nationalbibliothek. So I had an opportunity to see all parts of library, reading room, offices and archive spreading on three floors underground.

During my stay I was participating in Unix team of the IT department. On first meeting with colleagues from this team I was delegated by colleague Thomas Seidel to work on a research of SPLUNK software implementations with colleague Dr. Guido Jäkel.

SPLUNK

Splunk is software that enables you to search, report, monitor and analyze streaming and historical data from any source in your IT infrastructure: logs, configurations, messages, traps and alerts, script, code, metrics and more. If a machine can generate it, Splunk can eat it.

Second day of visit I had meeting with Mr. Reinhard Altenhöner head of IT department. He met me with IT infrastructure of German National Library in general and organizational structure of IT department.

Later I continued working on SPLUNK research which enabled me to familiarize with system and network infrastructure and concepts. I had a tour to server room and was met with core physical infrastructure.

Third day I had presentation of digital preservation projects NESTOR and KOPAL.

## NESTOR

The objective of the project was to create a competence network of long-term archival storage and long-term availability of digital resources in Germany. The competence network should create structures, which ensure that digital resources in Germany are archived on a long-term basis, are secured and are made available for use. Through national and international co-operation, a contribution was achieved towards safeguarding our global cultural heritage. Within the project, the following range of choices were developed, among others: a Web-based information forum with various content options for long-term archival storage and long-term availability of digital resources in Germany, criteria for trusted digital repositories, suggestions for procedures for a certification system for digital archives, policies for long-term archival storage of digital resources, a work-structure for the long-term availability of digital resources in the museum area, co-ordination of division of duties and the assumption of long-term duties, especially in the delineation between the library, archive and museum areas.

The German National Library was in charge of carrying out the project in co-operation with the Bayerische Staatsbibliothek München, Computer- und Medienservice / Universitätsbibliothek der Humboldt-Universität zu Berlin, the Fernuniversität Hagen (since 2006), the Generaldirektion der Staatlichen Archive Bayerns (until 2006), the Institut für Museumsforschung, the Niedersächsische Staats- und Universitätsbibliothek Göttingen and the Bundesarchiv (2005-2009).

## KOPAL

The objective of KOPAL was the practical testing and implementation of a co-operatively created and operated long-term archive system for digital information. As network partners, the German National Library, the Niedersächsische Staats- und Universitätsbibliothek Göttingen and IBM Germany implemented a co-operatively operated solution, capable of subsequent re-use by others, for the long-term preservation of digital

resources. The technical operation of the system is taken care of by the Gesellschaft für Wissenschaftliche Datenverarbeitung mbH Göttingen (GWDG).

The participation of the German National Library as the national archive library and the Niedersächsische Staats- und Universitätsbibliothek Göttingen as an innovative university information centre guaranteed that complementary viewpoints and differing user interests were taken into account in the realisation of the project. The technical realisation of the functions KOPAL is based on prior work accomplished since 2000 in a joint development project of the Koninklijke Bibliotheek (Royal Dutch Library) and IBM. IBM has undertaken its further development toward a co-operatively maintained system equipped with standardised interfaces within the framework of KOPAL. The ingest & retrieval software produced by the network partners (koLibRI) has the status of Open Source software. Comprehensive and heterogeneous data have been fed into the system during the term of the project in order to prove the concept's capacity and usefulness. Since mid-2007, the archival system has been transferred into the productive use by the German National Library.

I found that concept of web harvesting in archiving internet data is very interesting.

Next day I had a meeting with colleague Jochen Rupp and had presentation about bibliography standards and projects in German National Library.

I had a tour through interfaces of SRU digital service and ZDB.

## SRU

SRU (Search / Retrieve via URL) is a standard Web protocol to the internet to query databases. The results of the search are in a defined XMLformat provided.

The SRU protocol allows targeted searches using search indices and search terms and the acquisition of the matches in his own environment. The requests are in the query language CQL Common / Contextual Query Language) (.

The SRU standard was published by the Library of Congress and is a development of the Z39.50 protocol.

After registration and authorization of the German National Library offers an HTTP interface and the SRU protocol a request possibility to their data.

## ZDB - [German Union Catalogue of Serials](#)

The German Union Catalogue of Serials is the world's largest and most important database of periodicals and newspapers available in German libraries. It currently comprises around 1.5 million titles and 9.4 million stock inventory items connected with them from some 4,300 libraries. The database also lists the approx. 1.3 million corporate bodies contained in the Corporate Bodies Authority File (Gemeinsame Körperschaftsdatei, GKD).

It is funded by the Staatsbibliothek zu Berlin and operated by the German National Library. The ZDB database is available online.

As part of the project to integrate the details of periodicals held by the German National Library into the periodicals database, the next few years will see an operation in several phases integrating the inventory of periodicals and new additions held since 1913 by the German National Library into the ZDB database. Both partners stand to gain from synergies and the savings through rationalisation.

At the end, I found my visit to German National Library the most valuable professional experience I had in my career. I gained the perspective for future developments in organization where I work and I'm already implementing knowledge from my visit in every day work.

All German colleagues were very well prepared on my arrival and very kind in introducing their library. They were interesting to exchange opinions and discuss crucial library.

I would like to thank once again to all colleagues and persons that I mentioned or forget to mention in my report, who were so kind to host me and enable to realise successful and fruitful professional visit to Frankfurt site of German National Library. I am grateful to the BI-International (Bibliothek & Information - International Committee of the German Library Association and Lifelong learning programme Grundtvig of the Agency for mobility and programmes of EU for financial support.