

REPORT ROYAL LIBRARY OF BELGIUM 2002-2003

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1. Handling of electronic publications

The Royal Library of Belgium will install an e-depot system. This system will collect, save and make available documents which are published on the Web, on Belgian sites, or published by Belgian authors, websites in the domain .be will not be saved, as such. In our model, the publisher will deposit the electronic document at the Legal Deposit of the Royal Library. Until now, Belgium has no legislation on the deposit of electronic documents, the deposit is still on a voluntary basis. The publications, with their metadata, will be stored on a server at the Royal Library. To realise the long time preservation of the electronic documents, no funds are now available. These funds have to be searched, and retrieved.

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2. Information technology and networks

2.1. New investments in hardware/software

- - XImage package (developed by Software Centrica) has been acquired for the delivery of high quality images via Internet
- - E-mail application, based on open source software, has been migrated from sendmail to qmail
- - Open source web server software package apache has been updated in order to allow Secured Transmission (SSL, HTTPS)

2.2. Unicat project

The general objective of the UniCat project is to establish a gateway allowing users to simultaneously search and retrieve bibliographic records from Belgian library catalogues. As such UniCat can be considered as a virtual union catalogue of Belgian libraries.

The first phase of the Unicat project is reaching its final phase. Three work packages have been completed:

1. Creating the central node

A prototype application of the central node has been developed and documented.

Based on the Feasibility Study (WP1), the Central node or Central Repository in the Unicat project is a network of independent components. Three components have to be realized in order to fulfil the general objective of the Unicat project, namely: "Establish a multilingual (web) gateway allowing users to simultaneously search and retrieve bibliographic records from Belgian library catalogues". These components are:

- Unicat harvester
- Unicat indexer
- Unicat WWW gateway (this will be dealt with in WP4, planned for April-Dec 2003)

The harvester is the client application that issues OAI-PMH (Open Archives Initiative – Protocol for Metadata Harvesting) requests as a mean of collecting metadata from network accessible repositories (viz. the library catalogues).

These metadata are to be in a specific metadata format. Such a record is returned as an XML-encoded byte stream in response to a protocol request to disseminate a specific metadata format from a constituent item.

The resolutions on the harvesting process that has been decided to fit the Unicat project are that :

- OAI-PMH version 2 is used for inter-component communication
- a specific Metadata Schema for harvesting (UniCat MODS) is used.

A UniCat Harvester and Union Repository has been build on a Linux server.

The metadata working group of 7/11/02 came to the conclusion that the mandatory Dublin Core metadata scheme was too limited for our purposes. On the other hand MARC XML was found to be too complex for what it should be used for. The working group then examined the Metadata Object Description Scheme (MODS) (See <http://www.loc.gov/standards/mods/> for more info), which lies in between Dublin Core and MARC XML, and concluded that this scheme was suitable although some extensions were necessary, not only for bibliographical data but mainly on the holding level.

This Unicat Mods is a schema based on MODS version 1.2 (http://www.loc.gov/standards/mods/mods_v1-2.xsd) with variations in areas/tags of 'genre', 'language', 'location', 'typeofResource'. By having our own schema, we can be more specific to the data that is being shared and it also increases flexibility. Hence our own Unicat Mods schema evolved and will continue to evolve with the Unicat Project.

The Unicat harvester was taking focus for a major share of time but the indexer and the gateway have been already developed.

2. Adapting the local library systems

All the partners of Unicat (who act as the data provider) have adapted their local library systems to support the OAI-PMH2 protocol for data deliverance.

The Royal Library has implemented an OAI-PMH2 2.0 layer on its VUBIS-catalog. The implementation is based upon PHP OAI Data Provider Software written by Heinrich Stamerjohanns (<http://physnet.uni-holdenburg.de/oai/>)

The following features are supported:

- Unicode UTF-8 encoding.
- All items in the repository support the following metadata schemes :
 - oai_dc : Dublin Core
 - oai_mods : Unicat Mods(<http://bib2.ulb.ac.be/Unicat/unicat.xsd>).
- Selective harvesting on datestamp is supported with day granularity. However Selective Harvesting on sets is not supported because VUBIS has no predefined set of records.
- The data provider keeps no track of deleted records for the moment.
- Flow control: resumptionToken is supported.

3. Legal issues

Three objectives of this work package have been achieved:

- Study of the legal implications for Belgian libraries of the different implementation scenarios of UniCat (models 1 – 6 ; Z39.50 access versus Central repository)
- Recommendations and legal guidelines for practical usage in UniCat.
- Proposal of a standard agreement for the present and future project partners

2.3. Staff

There is still a lack of qualified IT staff at all levels. The number of computers, applications, services and users is growing very fastly. Most tasks require highly specialized staff which is not available in the institution.

3. The digital library

15.000 brochures from the nineteenth century have been digitized in order to preserve/conservate them. We opted for a technical solution that was economically affordable. TIFF-images are stored on CD-ROMs and we transfer them on the hard discs. They are put into a MySQL database and can be retrieved via browser. The indexation has been very raw : in 2002 we started the creation of a metadata for this material. Images in PDF format will be also available – PDF viewers are widely spread and more user-friendly than the TIFF-viewers. The brochures can be consulted at :

<http://krtek.kbr.be/db/query.php>

The Royal library continues to digitize manuscripts in cooperation with the publishers as for example with Brepols. *La Bibliothèque des Ducs de Bourgogne* has been published on CD-ROM. It focuses on 270 extant codices from the original collection that are still held in the Manuscripts Department of the Royal library. For each manuscript every miniature (illustration, marginal decoration, historiated initial etc.) and a large number of the key folios of the text (incipit, explicit, colophon, prologue, table of contents etc.) are available. The number of images is estimated to be more than 7000. Each image is linked to a detailed manuscript description and an index, using today's analytical methods. Detailed description of this project can be found at:

http://www.kbr.be/coll/manu/manu5_fr.html

and the commercial information at:

[http://www.brepols.com/publishers/cd-rom.htm#Ducs de Bourgogne](http://www.brepols.com/publishers/cd-rom.htm#Ducs_de_Bourgogne)

The Royal Library of Belgium is involved in two digitization projects :

Telematic Network for Teaching Art History in Universities

The aim of the project is to organize an information exchange network for teaching and research in the field of art history in Belgium. It involves setting up an operational structure within the partner universities that will make it possible gradually to transform the old slide libraries into "digital libraries" or libraries of digital photographs. In order to achieve this, the universities will be working with two specific image providers, the Institut Royal du Patrimoine Artistique and the Bibliothèque Royale de Belgique. These two providers make available to the universities a selection of digitized images of major works forming part of Belgium's artistic heritage, as raw material for courses on Belgian art history. In return, the universities will make efforts to supplement the textual scientific data for these two image providers, in accordance with the progress of research.

The first phase of this project ended. The variety of the constitution of the partners consortium (teachers, librarians, museum staff) proved to have been an interesting experience.

In the first phase a number of aspects have been studied that profoundly affect the final

product (existing standards, user inquiry, metadata, legal aspects, preservation, ...). A first pilot has been realised and will be tested.

System for analysis of the development of a structured high-performance system for the availability of historical atlases via metadata and digitizing

The Royal Library of Belgium possesses an important historical cartographic collection that reflects, in a sense, the two periods that were crucial for the development of the cartography in Belgium as it exists today. The first period begins in the 16th century and Louvain was an internationally recognized center of scientific cartography, whereas Antwerp was a center of commercial cartographic activities. A second period that was equally important for the cartography in Belgium coincides more or less with the Belgian independence and the origins of the Royal Library of Belgium. One of the pioneers in this development was Philippe Vandermaelen, founder of the *Etablissement Géographique de Bruxelles* (1830). This collection contains important and rare atlases.

There are no Belgian institutions (university libraries, Museum Plantijn-Moretus, Mercator museum...) where a specific cataloguing and/or digitizing project of atlases is currently running. In the Royal Library of Belgium these documents are insufficiently catalogued and hence difficult accessible to searchers.

Within the framework of historical research, it is important that this rich heritage of historic atlases is made available via extensive search possibilities and "just in time". This availability does not only concern a detailed database of bibliographic records of the documents, but also the actual documents in a (substitute) digitized form that is in its turn stored in a structured database. Both databases should be linked.

- A **CDrom** of the archives of Béla Bartók conserved in the Denijs Dille collection has been realised.

A **DVD** on the author **Rimbaud** is 'under construction'. This DVD will contain images, video and sound.

Some virtual exhibitions have been realised :

- • **Treasure of incunabula** gives an overview of the history of incunabula.
- • On the occasion of an exhibition on **St. Nicholas** a shokwave animation has been realised.
- • **The brothers Wieniawski in Brussels**

4. Retroconversion

Retroconversion of the Belgian Bibliography has been done for the period 1875-1930. The retroconversion of the catalogue of the Royal Library of Belgium is converted back to the year 1930. The preparation of the conversion for the period before has been started.

5. The Belgian Bibliography on CD-rom

The Belgian Bibliography appears only on CD-ROM. The Belgian bibliography is now available on CD-rom for the period 1875-2001.

6. Acquisitions

Since 2001, the Royal library of Belgium acquires new documents only in the field of humanities.

7. Conservation and preservation

In spite of several minor projects, conservation and preservation are not yet a major point on the agenda of the budget makers. More and continued lobbying by all research libraries will be required in order to start a real conservation and preservation project in collaboration.

8. International activities

9.1. CERL

The Royal Library participates in the CERL-project.

9.2. ELAG (European Library Automation Group)

The Royal Library coordinates the organisation of the ELAG activities and chairs the yearly meeting. ELAG brings together once a year colleagues involved in library automation in leading European libraries and information centres. The last seminar (Paris, april 2000) focused on Archives, Libraries and Museums convergence .

9.3. Bibliotheca Universalis

9.4. EROMM

9.5. ISSN

9.6. RILM (Répertoire International de Littérature Musicale)

9.7. RISM (Répertoire International des Sources Musicales)

9.8. International Numismatic Commission

9.9. Fédération Internationale des Médailles (FIDEM)

9.10. Groupe des Cartothécaires de LIBER

9.11. Centre International de Codicologie

9. Services to readers

-A CD-romnetwork has been realised.

- Visually handicapped dispose now over three specific PC's

- A feasibility study to realise distance reservation of documents has been done. The service will be implemented at the end of 2003.

10. Public relations and exhibitions

Public-relation policy contains : guided tours 'on measure', the yearly 'Open House day', the publication of the semi-annual Bulletin, participation in the Brussels cultural events and the participation in bookfairs, exhibitions and concerts.