# Digital Library Management in German University Libraries : The Bochum Perspective

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### Abstract

*The presentation demonstrates cooperative approaches in the field of digital library development in Germany from the perspective of Bochum University Library. It demonstrates the integrated OPAC, the regional union catalog, a search engine for national/international catalog resources, solutions for accessing international periodicals titles in printed and in electronic form, a database of databases, a regional digital library and further relevant national initiatives. The paper argues for teaching information competence, for integrating e-learning and e-publishing into the library's information architecture and for international cooperation to further enhance information products and services.*

**Keywords:** Digital Library, University Library, Portal

## 0.      Introduction

In the following presentation I shall demonstrate some cooperative approaches in the field of digital library development in Germany, which show that cooperation can create much better products and services than any library could ever offer alone. I shall demonstrate these approaches from the perspective of the library I come from: Bochum University Library.

I shall also make clear that the modular structure of our digital library does not always have a seamless architecture. With e-learning and e-publishing as emerging fields in which libraries are getting involved increasingly, it becomes evident that much work remains to be done in order to offer resources and services which will fulfil our users' needs in these turbulent and rapidly changing times. It is my personal opinion that this task can only be solved cooperatively.

## 1.      The Digital Library as a Cooperative Service

### 1.1     Integrated Library System / OPAC

The nucleus of our library services is the integrated electronic library system with the modules Acquisitions, Serials, Cataloging, OPAC and Circulation. Bochum University Library has created electronic cataloging records ever since its foundation in 1962. German university libraries with a longer history completed large retrospective conversion (retroconversion) projects in the 1980s and 1990s. Large and valuable resources of early and rare titles have been made accessible through these projects. Since retroconversion is expensive through the high labor cost involved, some libraries have digitized their card catalogs. We chose this technology for the card catalog with the holdings of the department libraries before 1990 on the Bochum campus. < www.ub.ruhr-uni-bochum.de >

### 1.2     Regional Union Catalog

In the information age libraries do not operate alone, they cooperate. So do we. Our regional union catalog is at the Interuniversity library center (HBZ) in Cologne. < www.hbz-nrw.de >

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1.3    Search Engine for National / International Resources

The German National Library operates a library in Frankfurt and one in Leipzig with separate catalogs, and we have a number of regional union catalogs. A special search engine searches the national resources (national libraries and regional union catalogs) and displays the results successively after each search in a different catalog. < www.ubka.uni-karlsruhe.de/html >

1.4    International periodicals titles

German libraries have created 2 databases of international periodicals titles, one for print journals, one for e-journals.

- ✍ ZDB contains bibliographic descriptions of all print journal titles in German libraries including title changes and library holdings in each region. < www.pacifix.ddb.de:7000 >

- ✍ EZB contains all e-journal titles (commercial and open access journals) in German libraries and full text if possible. Each library offers the users a local perspective on accessible full text journals. The traffic light system indicates the local availability: green for free journals on the internet, yellow for journals for which the Bochum library has a licence and red for journals that cannot be accessed from the Bochum campus because of licence restrictions. Other libraries in the country use the same database, but their yellow and red lights will be differently placed.

Our users find that this database is extremely useful: the journal titles can be sorted alphabetically and according to subjects, a quick search entry is also available. We are not an affluent library and cannot afford many expensive commercial science journals. We think (and hope) that the future will belong to open access publications. Our library supports the SPARC (= Scholarly Publishing and Academic Resources Coalition), which was founded by research libraries in the US but has sparked to Europe.

Recently the open access initiative gained momentum on a national scale, when major science institutions signed the Berlin Declaration which calls for support and recognition of peer reviewed open access publications. < www.rzblx1.uni-regensburg.de/ezeit/fl.phtml?notation=&bibid=RUBO&colors=7 >

1.5    The Bochum Web Site / Database of databases DBIS

The Bochum library has journal contents databases and subject databases in all fields; these are accessible over our web site. < www.ub.ruhr-uni-bochum.de >

Via our web site we allow access to our catalogs including an access point for a quick search in the OPAC.

We announce current events. We list our services: the library from A-Z, reference service, e-mail reference, acquisitions requests online, information literacy classes, ILL and document delivery, Internet workstations and access for users. We share information about the library: how to find or contact us, opening hours, the library mission statement, exhibitions, projects, national and international cooperation partners, departmental libraries. The column "search" gives a floor plan of the stacks and access to universal and subject specific electronic information sources.

A cooperatively maintained database of databases with a structure similar to the database of e-journals also uses the traffic light system to indicate a campus perspective: free databases on the Internet, locally licensed databases and databases which are not accessible from the Bochum campus. The database can be sorted alphabetically or according to subjects.
< www.bibliothek.uni-regensburg.de/dbinfo/suche.phtml?bib_id=rubo&colors=15&lett=l >

## 1.6 Regional Digital Library

Our regional library center maintains a digital library interface which allows a metadata search in national and international library catalogs, journal contents databases, subject databases and full text databases. The metadata search does not always yield complete search results. However, the advantage of the digital library interface is, that it also offers a local view, in our case the Bochum University library view, and if the result of a search shows that a certain title is not available in Bochum, the system offers and processes an ILL request. < www.ub.ruhr-uni-bochum.de/DigiBib/digibib-nrw.htm >

## 1.7 More Relevant Digital Library Projects in Germany

- ✎ The national subject portal vascoda, is being built cooperatively with funds from the German Research Association. The subject portal offers valuable material and is a valuable access point. However, there is no agreement yet as to how this portal should be integrated into our existing digital library structures. < www.vascoda.de >
- ✎ Digitization projects with digitization centers in Göttingen and Munich
- ✎ Network of multimedia resource centers

Initially, in the year 2000, 15 archives, museums, documentation centers and libraries with large multimedia resources formed the nucleus of the project; meanwhile over 30 institutions from all German regions are partners in the network and cooperatively provide access to multimedia collections and materials. < www.netzwerk-mediatheken.de >

## 1.8 Information Competence

Our digital library is not easy to use. But heavy use is in our interest, because the digital library costs a lot of money to maintain. We teach information competence in the Bachelor's program, and we integrate information competence in the curricula of the university departments by lecturing to freshmen.

Also, librarians take a laptop and a beamer to the cafeterias of the departments and show the students how the library can help them find information.

On an international level, we are working with the Seton Hall University Libraries in South Orange, N.J., USA, on information competence. We have been exchanging ideas and experience for 3 years now.

## 2. The Digital Library as a Modular Structure

It is obvious that the digital library I have presented has a modular structure, and the modules (the OPAC, regional union catalog and ILL, national resources, periodicals titles in printed and electronic form, journal contents databases, subject databases, full text databases) do not always form a seamless architecture. In spite of the digital library interface and in spite of the care we are taking to maintain a user friendly web site, there is still a classical and an electronic library with different demands and challenges to library personnel and users.

The situation is further complicated by the fact that most German university libraries are currently working on digital information issues together with the computer and /or media centers on campus. The most prominent issues are e-learning resources and e-publishing.

## 2.1    e-learning

The Bochum library is participating in the university's e-learning initiative together with the Computer Center, the Media Center and the Center of Continuing Education. In the framework of a project we cooperatively create, provide and maintain e-learning resources for the Archaeology Department and for an interdisciplinary neurosciences group. The university's e-learning platform is the Blackboard system. This is expensive vendor software. The library, being under constant pressure to fund expensive databases and e-journals, favours open source software out of necessity. On the other hand, Blackboard is an internationally applied platform, and since our American partners are also using it, it will facilitate international projects.

The library has not yet decided how to integrate the Blackboard system into its services. Currently, access to the e-learning resources is via the project web site, and the library has integrated its portal to course materials and e-learning resources (Virtual Book) into the Blackboard system.

## 2.2    e-publishing

In Germany there is a publication requirement for dissertations, and libraries have always been responsible for distributing these publications. In the last few years university departments have decided to permit electronic publication in fulfilment of the requirements, and the library accepts data files instead of print publications.

We have built up a dissertation server which is a BRS database with the functions of a data provider in the framework of the Open Archives Initiative (OAI). Currently we have 1200 dissertations online with bibliographic descriptions and full texts which can be searched and accessed from anywhere in the world. < 134.147.247.178/HSSSuchMaske/hs.cgi >

An expansion from dissertation server to publications/media server is desirable and being discussed.

On the regional level some libraries of the region and their universities are producing peer reviewed e-journals and using the publication workshow system (GAP), the document server (OPUS) and the online presentation system (Fedora) cooperatively. The systems are regionally provided and maintained by the Interuniversity Library Center in Cologne. < www.dipp.nrw.de >

## 3.    Conclusion

I hope I have made clear that we are working on very similar problems as you and probably under similar financial constraints. It is a global village. We live in fascinating times, and libraries can be the winners of the globalization process, because they have always known the concept of sharing in order to gain. Together we shall work on solutions for even better digital libraries to serve our customers better.

## 4.    References

1.    Bochum University Library.  www.ub.ruhr-uni-bochum.de

2.    Interuniversity Centre, Cologne http://www.hbz-nrw.de

**About Author**

**Dr. Erdmute Lapp**, Director of Bochum University Library, Germany since 1996. She has been deputy director and head of user services at the Central Library of Juelich Research Center as well as project coordinator of several library planning projects. Her special interests are international projects on digital library development and the teaching library. She is teaching information competence in her university's Bachelor's program.

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