

# ILL ICT Solutions in Germany - Cooperation by Networking

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## INTRODUCTION

Interlibrary loan has a long and valid tradition in Germany. Ever since the country lacked one national library to become the central access point to information. In place of one there exist large state libraries in Berlin, Dresden, and Munich, and a handful of regional libraries. They all are legal deposit libraries, as is the Deutsche Bibliothek with its branches in Leipzig and Frankfurt. The latter as a foundation of the book trade in Germany got its legal deposit function by federal law only in the 1960s. In the first half of the 20<sup>th</sup> century these regional libraries concurred with the university libraries as universal scholarly libraries. As a matter of fact, this system was and is of today a decentralized system, putting academic resources under the cover of the federal states rather than the federal administration.

To exchange library materials by means of an ILL service a union catalogue would promise patrons and librarians alike a bibliographic tool and a tool for fast access to the materials required. However, Germany lacked a union catalogue. The *Gesamtkatalog der Preußischen Bibliotheken* started in the 1880s but its first volume was published only in 1931, also including holdings of the Bavarian State Library and the Austrian National Library at Vienna (*Gesamtkatalog*, 1931). Many libraries suffered severely by loss of materials due to the consequences of World War II. Academic life and scholarship was almost impossible without a means of interlibrary loan. It was therefore decided early after the war, to build up union catalogues by filing copies of catalogue cards sent by libraries after an early and sometimes imprecise revision of their holdings. It was decided also, that these union catalogues would be filed in regional centers thus building a network of union catalogues and not one common German Union Catalogue. Federalism of the young post-war state prevented it, only ICT solutions can nowadays overcome these restrictions. Ever since, libraries cooperated by negotiating ILL routing mechanisms using these regional union catalogues as hubs to fulfill the enormous demands of their patrons.

With emerging library automation in Germany bibliographic utilities for cooperative cataloguing have been founded since the 1970s. The Hochschulbibliothekszentrum North Rhein-Westphalen (HBZ) was established at the site of the regional union catalogue at Cologne in 1973 and operated it and its ILL services. Since these regional union catalogues in Germany have been retroconverted into machine readable formats in the

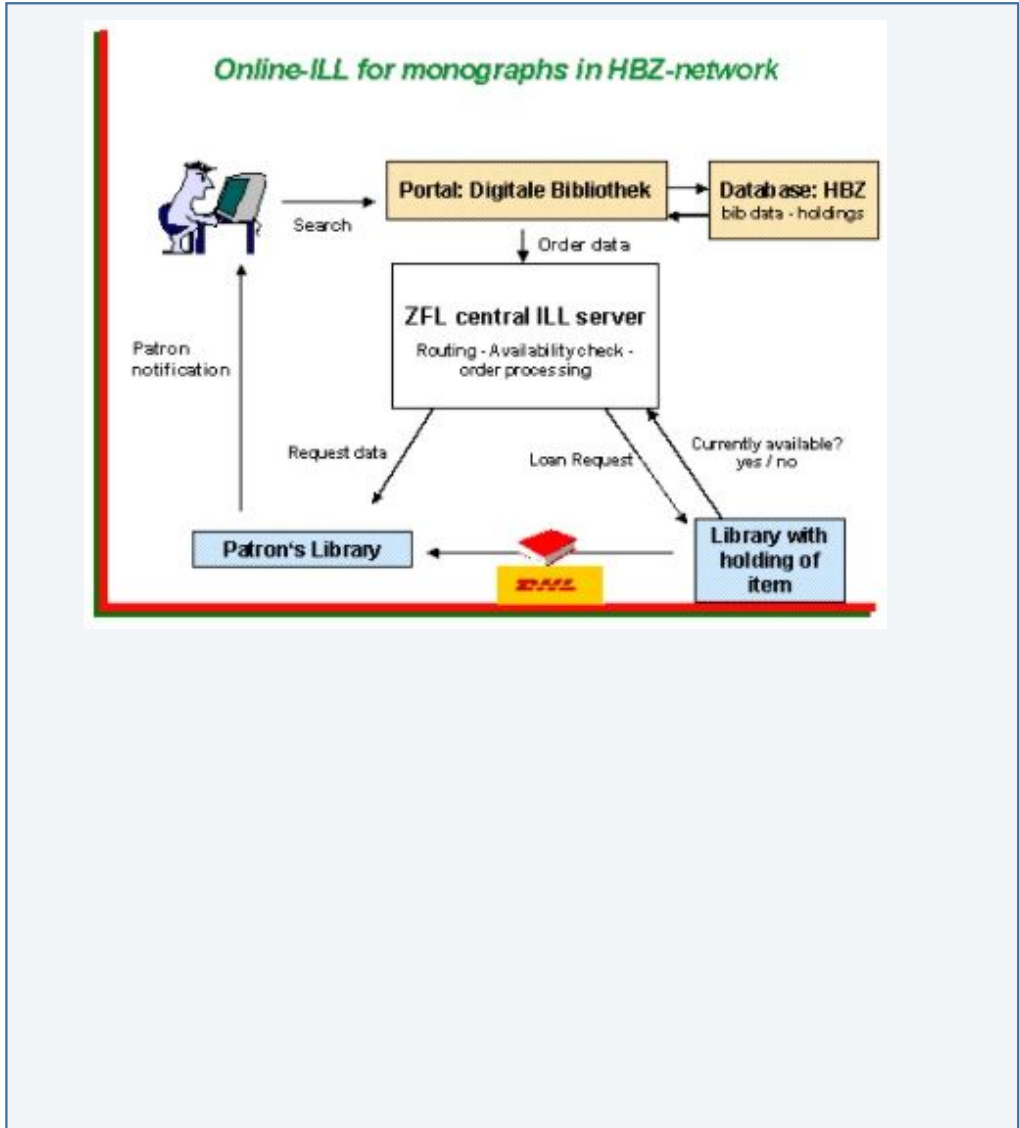
past decade, it was reasonable to use these data resources for an user friendly ILL service integrated into existing Digital Library infrastructures in Germany. The online interlibrary loan network was born (Online Fernleihe und Dokumentlieferdienste)

#### ICT ENVIRONMENT 1999/2000

When Aleph500 was introduced to the HBZ region as the union catalogue's new system in 1999, it soon became clear that it would not be possible to realize online interlibrary loan as part of the union catalogue. One of the main reasons was the diversity of local library systems in use in the region of the HBZ library network. Even the two main local systems (Sisis, Aleph) differ widely from each other, but the range of individual solutions implemented for smaller libraries further complicates the situation. Mostly, these systems do not possess any interface to the union catalogue at all. Therefore, the decision was made to develop a stand-alone interlibrary loan system for monographs that was flexible enough to meet the demands of this heterogeneous landscape (Kostädt, 2001). A system was subsequently created that spans the whole range of library systems: a maximum-comfort solution at the one end provides means for seamless communication of the library's own system with the central ILL system. On the other end of the range, a minimum solution enables even small libraries with tight budgets and minor technical equipment to participate by sending and receiving ILL requests in the form of e-mails. The system was developed in cooperation of Sisis Informationssysteme GmbH, the HBZ and Bielefeld University Library. It is based on a central database and utilises a subset of functions of the socket-based internet protocol SLNP (Simple Library Network Protocol), developed by Sisis for their SunRise system. As local Sisis systems also operate on SLNP, and local Aleph500 systems understand a number of SLNP commands, direct communication with the central ILL server becomes feasible. At present, 40% of the participating libraries use SLNP.

In 2000, a test with eight piloting libraries was started. After extensive testing and thorough evaluation, the eight libraries went productive. Since then, libraries of all universities in the HBZ region, the majority of UAS as well as numerous public and special libraries have been connected to the system, the number exceeding 150 by autumn of 2003 (Mrowka, 2002). Processing time of orders has been reduced to a fraction of the time needed for circulation of conventional ILL requests: 6% of orders are dealt with in the lending library on the same day, 22% on the next. As the first library fulfils 70% of requests en route, the time period from ordering the book to charging it in the lending library averages four running days. The delivery time is further reduced by the parcel express service introduced to the HBZ region in autumn of 2001. The mere dispatch is either routed via the HBZ or handled bilaterally between the requesting and lending library. In both cases, books are sent using special blue containers of the Deutsche Post.

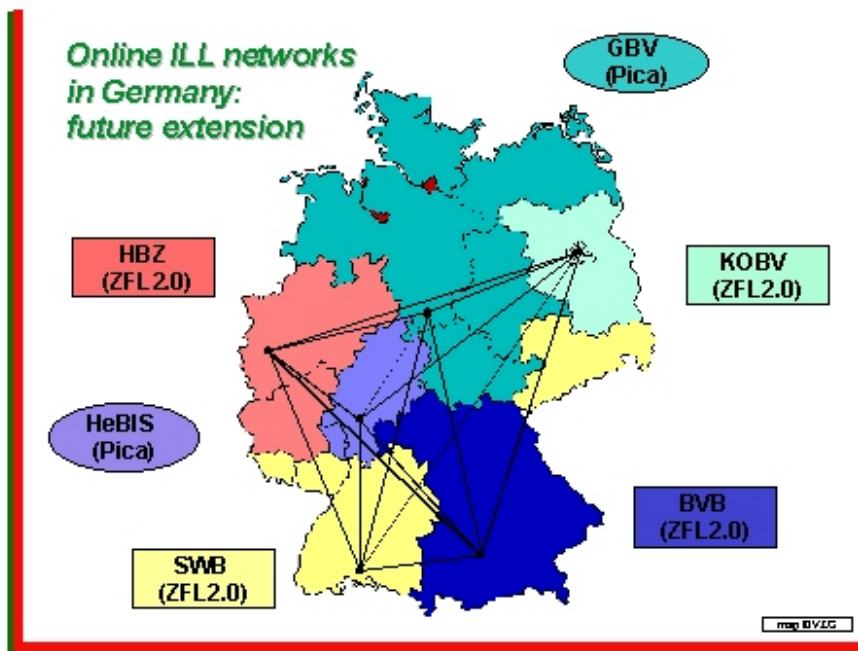
ONLINE ILL AS A LIBRARY SYSTEM INDEPENDENT PORTAL SOLUTION



As portal for ILL, the HBZ uses the Digital Library (DigiBib) as it offers a number of necessary features such as meta-search, availability check and user authentication routines (Berz & Mrowka, 2002). Furthermore, the DigiBib is well established: libraries have their own "local views", giving the impression of a seamless fit into the libraries own web pages including colours, logo etc. Tailored information services like catalogues, databases, electronic journals and online resources are grouped together according to the libraries specifications. When users log on to the DigiBib with their library account and password, they have ILL tools at their disposal. Guests who log on unauthenticated do not see the ILL functions, only commercial document delivery services. Users can search a number of databases simultaneously in a parallel query (meta-search). If the system cannot find the title in the users' home library, they are offered the possibility to place an ILL order. Otherwise, the users are linked into the library's OPAC to order the title there, as ILL on media held on location is prohibited by the official German ILL code. Still, it is possible for the library staff to order the title at the users' request if the book is not available.

Upon confirmation of order, the data are first filed into the central database of the ILL server, which is located at the HBZ. Library staff has access to the database via the Internet, enabling them to verify the status of the order at any time. The server then charges the order to the users' local account at the requesting library or, if no interfaces exist between the ILL and local system, devaluates the transaction number that was used while ordering. Transaction numbers (TAN) are utilized by a number of libraries conducting ILL with e-mails because their local system does not support SLNP. Users can acquire TAN in their library prior to ordering, just as they would buy stamps for letters. Information on the requesting library is encoded in the TAN as it also serves as a means of authentication - it is not possible to use a transaction number in the DigiBib view of any library other than the one it was bought in. Subsequently, the ILL server generates a message to the first potential lending library and, if possible, checks the availability in the local system using the SLNP protocol. In contrast to other ILL systems where the general availability information is recorded in the respective union catalogue, the HBZ system verifies the actual local lending status. If a book cannot be delivered, the ILL system automatically routes the request to the next library holding the title. This procedure is repeated until a potential supplier is found or it is clear that no library at all is able to deliver. If a request cannot be fulfilled in the HBZ-region, the order is filed in a special list for further processing by library staff. The librarians decide whether they order a different edition in the HBZ region, or forward the ILL request to another German region, or print a red ILL paper slip for conventional offline interlibrary lending. This may be necessary as not all libraries participate in online ILL yet. However, librarians in the HBZ region will probably choose to place the order online in another region because the result is obtained much quicker and can - in contrast to traditional methods - be controlled in the database itself, thus enabling the librarian to check the item's status all the time. At present, HBZ libraries can order online in two other regions: the BvB (Bibliotheksverbund Bayern) and GBV (Gemeinsamer Bibliotheksverbund) region, the latter comprising a total of seven Länder. The Bavarian region uses the same

ILL system as the HBZ, the Central ILL server (version 2.0) premiered in the HBZ library region. Two further regions have also decided to obtain this system and are currently setting up their own ILL network. Thus, four of the six German library regions use the same or similar systems, which allows for a practically seamless exchange of orders via SLNP, a large step into the direction of a complete German ILL network. The two remaining regions, GBV und Hessia (library network HeBIS) employ the ILL module of the OCLC PICA system. With the OCLC PICA system, a solution comparable to the inner-regional mode of transmitting orders in the form of e-mails has been established which enables the HBZ libraries to order online in the GBV region since December of 2002.



#### GERMAN NATIONAL ILL CODE REVISION 2004

Taking into account that in recent years the landscape of ILL in Germany has experienced major changes, the German National ILL code has recently been altered. The new code will be decreed for all regions in the beginning of 2004. Apart from a

clause committing all libraries to use online ILL, and allowing conventional paper forms in exceptional cases only, the main alteration will be in the field of charges. Until now, the lending library retains the fees imposed on the users for ILL requests. In the future, online ILL fees will be offset with the actual lending library, while network centers obtain 20% of all fees to cover their technical and organizational expenses. This new regulation makes allowances for the fact that in the last years the development and day-to-day running of online ILL-system has become one of the main tasks of regional network centers.

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4. Mrowka, Tatjana. "Online-Fernleihe im HBZ-Verbund. Abschied vom Roten Leihschein". *Bibliotheksdienst* (2002)2, 192-194.

## WEB SITES REFERRED TO IN THE TEXT

Bayerische Staatsbibliothek (Bavarian State Library). <http://www.bsb-muenchen.de/>

BvB (Bibliotheksverbund Bayern). <http://www.bib-bvb.de/bvb.htm>

Die Deutsche Bibliothek. <http://www.ddb.de/>

Die Digitale Bibliothek (DigiBib) - das universale Portal des Wissens. [http://www.hbz-nrw.de/produkte\\_dienstl/DigiBib/](http://www.hbz-nrw.de/produkte_dienstl/DigiBib/)

GBV - Gemeinsamer Bibliotheksverbund. <http://www.gbv.de/>

HBZ - Hochschulbibliothekszenrum Nordrhein-Westfalen. <http://www.hbz-nrw.de>

HeBIS - Hessisches BibliotheksInformationsSystem. <http://www.hebis.de/>

OCLC PICA. <http://www.oclc.org/>

Online Fernleihe und Dokumentlieferdienste. [http://www.hbz-nrw.de/produkte\\_dienstl/digibib/fernleihe/fernleihe.html](http://www.hbz-nrw.de/produkte_dienstl/digibib/fernleihe/fernleihe.html)

Österreichische Nationalbibliothek (Austrian National Library). <http://www.onb.ac.at/>