

The Project SSG-S: a Rapid Document Delivery Service for Astronomy, Astrophysics and Space Research

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Abstract. For nearly fifty years the Deutsche Forschungsgemeinschaft (DFG) has given considerable financial support to a series of German libraries for the acquisition of research literature in various areas. Particular emphasis was put on the acquisition of special research literature in addition to the standard material as found in many collections.

The project SSG-S aims at making these collected resources as comprehensively and easily as possible available to institutions of higher education, research and private enterprise alike. This does not only include a rapid document delivery service, but also aims at recording and making accessible all relevant material including electronic documents.

1. Introduction

The Deutsche Forschungsgemeinschaft (DFG), the German Council of Research, derives its international reputation from the fact that it sponsors and finances research in all fields of science at universities as well as other research institutions. What is less known is the fact that it also finances research collections in various German libraries. Thus important tools of the infrastructure of scientific research are included in the DFG's sponsoring programs.

The major part of this investment in libraries works for the benefit of collection development in a distributed system. For individual libraries it is becoming more and more difficult to follow the development of scientific publications in all fields of science. Under the German distributed system of collection development a limited number of efficient research libraries receives financial support to build up their collections in specific areas of science as extensively as possible. This is done with the obligation to make their collections available in inter-library loan (ILL) and other document delivery services.

Twenty-three individual German research libraries thus receive special funds to develop their collections in the various distributed subjects. The distribution of subjects was organized according to existing special or traditional collections or the close connection to existing important research institutions. This system is rounded off by four central subject libraries ("Zentrale Fachbibliotheken") for application-oriented subjects. The subjects are: Engineering Sciences, Natural Sciences, Medicine, Agricultural Science and Economics. Astronomy, Astrophysics and Space Research is one of the DFG special collections and is covered by the State and University Library in Göttingen. The areas of Physics and

Space Travel are covered by the Technical Information Library (TIB) in Hannover.

Participating libraries are obliged to acquire specialized and highly specialized literature on a truly international level. They are particularly expected to buy as extensively as possible in the area of “grey” literature, that is reports, conference papers, preprints and government publications. Not only printed material, but also the whole range of digital publications has to be collected. Creating access independent of time and local factors is one of the more challenging recent obligations of the libraries involved.

The DFG predominantly covers the purchasing of special foreign literature. The procurement of standard literature from abroad and the acquisition of the research literature published in Germany in the specific collection’s main fields are financed from the specific library’s own resources. The DFG has developed and supported this system of distributed national collection development for nearly fifty years.

To give an idea of how funding is translated in concrete terms note a few statistics (Degkwitz 1994):

- Some 100,000 foreign and domestic periodicals are currently being subscribed to by the special subject collection libraries and the central subject libraries.
- The yearly acquisition of foreign monographs amounts to some 100,000 volumes. In addition to these, there are approximately 100,000 physical units of foreign microforms.

The effective use of all printed material, electronic documents, journal articles and preprints etc. is one of the essential components of this distributed (national) library. To realize this, ideally three conditions have to be fulfilled:

- Convenient access to nationwide library resources;
- Offering online ordering for digital as well as printed documents as the result of any search at the homepage of the relevant library. All searches should operate under the motto “What you see is what you get;”
- Rapid document delivery for printed material as well as for digital full text.

Searches in the field should operate as a “one stop shop”, in close cooperation with an electronic document delivery service.

2. The State and University Library of Lower Saxony

Some remarks about the State and University Library of Lower Saxony (SUB), its history and current functions: founded in 1734, it soon became the international model of a research library thanks to its early system of collection development on a truly international scale, detailed nominal and classified cataloguing as well as liberal access for users to its collections. Research in Astronomy at Göttingen is connected with such famous names as Tobias Meyer, Carl Friedrich Gauss and Karl Schwarzschild.

Today the library has 4 million volumes and 15,000 journal subscriptions. Thus, the library is one of the ‘Big Five’ of German academic libraries. The library subscribes to 150 journals in the field of astronomy. The whole collection including the historical material consists of at least 100,000 volumes.

Overall the library plays an important role in the distributed national library scheme, collecting in 20 completely different fields like Natural Sciences, Pure Mathematics, Geophysics, Library Science, English and American studies, and, for example, in minor highly specialized fields like Korean Language and Literature. As a university library it is responsible for 27,000 students and 600 full professors, nine research institutions independent of the university (for example the Max-Planck-Institutes) and the Göttingen Academy of Science.

In addition to local services the library supplies others with about 150,000 inter-library loans per year including 17,000 through document delivery services; of these, an increasing number are from outside Germany.

3. The SSG-S-Project

Following are more details of the expanding duties of a library under the distributed national system with the aim of a “one stop shopping” that is being developed under the auspices of the Sondersammelgebietservice (SSG-S)¹.

3.1. Online Contents Database

While offering nationwide access through cataloguing to the library resources, books, dissertations, periodical titles, conference reports, preprints etc. is one of the original duties of any research library, contents tables of periodicals and conference proceedings are becoming more and more important. The production of periodical contents services has traditionally been the domain of commercial organisations, small specialized teams or specialized publishing houses. The possibilities of modern technology as well as the expectations of the modern users have recently put special collection libraries under the obligation to produce widely accessible information into periodical contents (Enderle et al. 1996). Naturally it would be superfluous to create a completely new article database in Astronomy. However, the highly specialized periodicals that are acquired by the special collection library worldwide, sometimes even by exchange or personal connections, can expand and enrich the existing databases.

The standard online contents services like Uncover or SwetsScan by Swets & Zeitlinger from the Netherlands cover approximately 50 journal titles in astronomy. Göttingen as a special collection library holds 150 titles. Under SSG-S services the library scans at present the tables of contents of 20 additional titles as they arrive and adds them to the Swets Scan database, named now Online Contents². The library will expand this to all astronomy journal titles it subscribes to and which are not currently contained in the Online Contents database. The service also includes the tables of contents of all electronic journals appearing in the field of Astronomy.

¹http://www.sub.uni-goettingen.de/ebene_1/ssgsbe-e.htm

²<http://www.gbv.de/cgi-bin/nph-wwwobnmenu?PAGE=OBNACCESS&LANG=EN&EXT=ON>

The idea of a coordinated group of special collection libraries creating a joint periodical contents database from the tables of contents of the various journals acquired seems quite attractive. The potential of this idea could very well create databases that can easily compete with commercial databases. Once under the control of the special collection libraries these databases could be classified as much more professional than those available on the market. The professional organizations could invest their manpower in improved classification and indexing.

Searching in the database Online Contents is comparatively easy and offers all advantages of a WWW-interface (for example hypertext linking). There are various points of access: author, title, title of journal, Basic Code (something like LOC's Main Classes), International Standard Serial Number.

Selecting by Basic Code³ results in 75 titles of periodicals. Clicking on the contents button one can view the tables of contents (beginning with the most recent one).

3.2. Document Delivery Service

The Göttingen version of Online Contents is in addition enriched by the possibility of online ordering. Immediately after the search a selected article can be ordered. Online Contents does not only offer Göttingen's holdings but those of most major German research libraries, for example the TIB, the Technical Information Library in Hannover and especially those that are included in the national distributed library plan (Sondersammelgebietsplan) of the DFG.

Orders are filled within 72 hours, or by special request even within 24 hours. Standard delivery time is usually 48 hours. Delivery is by e-mail, fax or regular mail. Delivery prices depend on the means of delivery, type of service and user-group. Members of German universities or research institutions pay for example DM 5,- for electronic delivery, which is becoming the standard form of delivery. The service is not only offered to German users, but can be used worldwide.

The library of Göttingen prefers MP-TIFF format for electronic delivery. This format has the advantage that the whole document is zipped into one file. On scanners and mail-servers we use the software package ARIEL as developed by the Research Libraries Group (RLG), a service that is as close as possible to modern international standards of document delivery.

The end user is informed immediately about orders that cannot be filled. The ILL-Info button in the menu also permits the users to view his orders and check the state of processing.

Naturally this system also permits ordering of monographs and dissertations or other material that is not included in the database. The database still has to be changed. All databases have the same search functionalities as Online Contents. By the fall of 1998 we hope to present a full search across various databases, including catalogue data from the libraries involved and special databases like Inspec. Due to the international Z39.50 protocol this is no longer a dream but a fact and the "one stop shopping" for the user will become a fact, at least as far as printed material is concerned...

³The Basic Code for astronomy is 39.

3.3. Electronic Publications

Of course the special collection libraries also have the duty to collect electronic media that play a more and more important role in particular in periodical publishing. Electronic journals and other digitized publications have to be included as soon as possible into these services. This creates a series of new challenges for the libraries, that have to make available the publications acquired for the distributed national library – be they conventional or electronic – all over Germany. But access to an electronic document is generally controlled through an IP-address. This access generally depends on the subscription of the printed version. That means the collecting library can make these electronic journals available only on a local level, generally within the home university.

Licence agreements and the control of access and storage play a vital role in future acquisitions of electronic material by special collecting libraries, if the existing system of a distributed national library is to stay functional. The reader will expect to know where he can order anything relevant to his field of studies without having to search through whole series of servers, using a whole series of retrieval languages and interfaces.

4. Conclusion

Libraries, professional organizations, learned societies and publishers can reach the aim of a “one stop shopping” only by close cooperation, and certainly not when they operate against each other. In modern research in an electronic environment the satisfied end-user has to be the ultimate aim of librarians, professionals and publishers alike.

References

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