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KVK- A Meta Catalogue for Libraries

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Abstract

The article presents the KVK, a virtual catalogue run by the university library of Karlsruhe. It gives the user access to most of the electronic catalogues of German libraries, a number of booktrade catalogues and several national libraries outside Germany.

Main Heading

Information system ; virtual catalogue ; meta catalogue ; German union catalogue.

Setting Up a Virtual Catalogue

Over the past years, the majority of libraries worldwide implemented interfaces to allow users to access their bibliographic databases through the WWW. Usually these interfaces consist of HTML pages with an embedded FORMS template where the search terms are entered. Thus for the first time it was made possible for the user to access almost every library using only one software: the WWW browser.

However, if the user has to search more than one library catalogue, e.g. when searching the literature for a PhD thesis, he has to access a multitude of catalogues and deal with different search forms, different search syntaxes, wildcards etc.

This is the case especially for users in Germany where a central union catalogueue of library holdings does not exist because libraries as cultural institutions are run by the 15 federal states (Bundesländer).

Libraries cooperate within the scope of the Bundesländer, and there are currently 8 union catalogues in Germany. A large-scale project called DBV-OSI was commissioned in the first half of the nineties with the aim of integrating these union catalogues on a Z39.50 base (a national American standard for information retrieval, which is being used worldwide) but the project was only partially successful. Faced with this situation in 1996, our team at the university library of Karlsruhe had the idea to try to create a virtual catalogue enabling our library patrons to search several catalogues simultaneously.

The idea was inspired by the success of meta search engines like metacrawler which perform the same function with internet search engines. So why not try to do it with library catalogues?

The idea was discussed, and with support from the faculty of computer science, a prototype was built in July 1996. It proved surprisingly easy to do, so we included not only union catalogues but also bookshops. The meta catalogue showed such a great deal of potential that we decided not to limit access to our local library patrons but to offer it as a service to the internet community as

Karlsruher Virtueller Katalog (KVK, Karlsruhe Virtual Catalogue). Once the KVK was announced in several mailing lists, the usage peaked within a few weeks and has continued at a high level.

The URL of the KVK is http://kvk.uni-karlsruhe.de/.
There is also an English version.

KVK user interface (new layout)

Features of the KVK

The Karlsruhe Virtual Catalogue is a meta search interface which allows users to access library catalogues via the WWW.
The user selects a number of catalogues (i.e. the target systems) and types in the search terms.
On selecting the search button, the KVK first checks the availability of the selected catalogues, then converts the formulated search to the target systems' syntax and starts a simultaneous search.
While the results are coming in, the KVK starts to build the short title list. The short titles are collected from the target systems and presented in a standardized form. As soon as the result of one target catalogue is retrieved, it is formatted and displayed immediately.
When selecting one of the short titles, the user's browser switches to the full title display provided by the target system.
In total, Karlsruhe's virtual catalogue offers access to the title data of an estimated 60 million books and journals. Exact numbers cannot be supplied, all the more as there are numerous duplicate entries, which would distort any estimate given.
So far, this sounds reasonably simple, and in fact it is.
However, with the development of the KVK over the last few years, the system has become rather sophisticated and covers now features like session management, local load distribution management, asynchronous connection testing, English translation of search terms, and access to databases via Z39.50.
In addition to Z39.50 access, we offer special versions of the KVK, one for users behind a firewall, a javascript-free version, and a table-free version for old browsers.
Using cookies, it is possible to store an individual selection of target catalogues.
By now the KVK handles forms interfaces of several different library computer systems e.g. Ex Libris' Aleph, Biber, Pica, Amazon, Sisis, Control Data, Allegro.

KVK Today

Today the KVK gets about 750,000 request per month and has become an indispensable bibliographic tool in the German-speaking countries. For the first time, the KVK offers an easy and fast method to access the library holdings of all important German libraries (at least for the newer literature) via the internet.
It is therefore the best ever approximation to a German union catalogue.
The KVK has received the INETBIB award for innovation in 1999 and is supported by the Deutsche Forschungsgemeinschaft (the German federal body for scientific research) as it is an important infrastructure for the scientific community in Germany. Over the last four years, the KVK has been developed further by the library staff at Karlsruhe university, and includes now six German union catalogues, the union catalogues of Austria and Switzerland and COPAC, a British union catalogue. In addition, the KVK accesses the national libraries (or their equivalent) in Germany, France, Italy, Spain and Scotland, and three booktrade catalogues.
The catalogue is used mainly on workdays (Monday until Friday). This amounts to an average number of 35,000 inquiries per day. The relationship between KVK inquiries and the resulting searches in the target systems amount to an average of approx. one to five, i.e. per KVK inquiry five target catalogues are queried. Most of the queries originate from academic institutions in Germany (65%), Switzerland, Austria, Italy and the Netherlands.

Who Benefits from the KVK?

Everybody who works with scientific literature benefits from the KVK.
The catalogue helps save time as a series of research sessions can be converted into one.
It also shields the user from the forms interfaces of the target systems, which can be rather awkward, and also bypasses the time-consuming procedure of logging in and selecting a database, a technique used by several catalogue providers.
Librarians love the KVK because it gives them easy access to bibliographic data which they can use for cataloguing.
For this client type, we introduced a check box entitled "MAB-Link".
Checking this box will cause the KVK to return bibliographic data in MAB, a structured format and the German equivalent of MARC. In this way, the data obtained from the KVK can be automatically processed for usage in another computer catalogue.
Most of all, the KVK is an important tool for interlibrary loan.

Side Effects of the KVK

As it hosts the KVK, the university library at Karlsruhe now has to run several servers to deal with the steadily increasing use of the KVK. The university library also receives numerous requests from users in search of German literature.
These users mistake the KVK as a holdings list of the university library, which is in fact a rather small holding, i.e. less than a million books.
In addition, a considerable number of complaints about deficiencies of the target systems are erroneously sent to us.
It is understood that the KVK cannot provide features that the target systems do not offer and it cannot speed up the response time of slow target systems.
Nor are we able to eliminate duplicates in the hit lists, not only because that would create a tremendous load on the target systems, but also because the cataloguing conventions differ too much between the target systems.

More Virtual Catalogues

It soon became clear that a virtual catalogue is an ideal means to integrate heterogeneous bibliographic data collections.
Hence several institutions approached the university library Karlsruhe and asked if we could create a specialized virtual catalogue for them.
Consequently, there exist now several more virtual catalogues beside the KVK.
Out of these additional catalogues, there are several regional virtual catalogues combining the holdings of important libraries in a given region, such as the Virtual Catalogue of Karlsruhe - Karlsruher Gesamtkatalog - or the Virtual Catalogue of the German state of Rhineland-Palatinate.
Another type of virtual catalogue brings together libraries specializing in a certain field like the virtual catalogue of the history of art or the Virtual Catalogue Neptune, the latter bringing together libraries specializing in maritime research.
Another example is the KVVK - Karlsruher Virtueller Volltext Katalog (virtual full text catalogue of Karlsruhe).
It includes only titles that are available as full texts.
Currently, these are primarily text archives of several universities such as EVA

(http://www.ubka.uni-karlsruhe.de/eva).
The archives contain mostly PhD and diploma theses and scientific reports.

A list of all virtual catalogues can be found at http://www.ubka.uni-karlsruhe.de/hylib/virtueller_katalog.html.

It should be mentioned that in Italy there is also an important virtual catalogue - MAI - MetaOPAC Azalai Italiano.
This is interesting as the political structures in Italy are similar to those in Germany, where there is no central authority for cultural affairs.
The URL of MAI is http://www.aib.it/aib/opac/mai.htm.

Future of the KVK

We are continuously improving the KVK.
On the one hand, we regularly include more catalogues, in the past mainly national libraries of different countries.
We are also working on improving the KVK's user interface, which has become rather complex by now.
On the other hand, we are optimizing the KVK as a tool for document delivery and interlibrary loan.
The library patrons at Karlsruhe can use the KVK for ordering articles and books via the interlibrary loan network in Germany.
We are looking forward to the fifth anniversary of the KVK in 2001!

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