MetaSearch for All at the Hong Kong University of Science and Technology

香港科技大學
THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

The Hong Kong University of Science and Technology (HKUST) is a research-intensive university dedicated to the advancement of learning and scholarship in science, engineering, business, the humanities, and social sciences. There are five schools and 20 academic departments and divisions. Since its official opening in October 1991, HKUST has established itself as an intellectual powerhouse, energizing the community's transformation into a knowledge-based society and securing a place on the academic world map in record-breaking time. An innovator in research and teaching, HKUST is the only science and technology research university in Hong Kong and the only one to offer an all-PhD faculty.

Challenges

In order to find materials in the more than 300 databases to which the HKUST library subscribes, users had to search in each content provider's interface or via the library catalog. Also, users often became frustrated in their attempts to reach the full text of articles. The HKUST library needed to offer users a more streamlined option for searching and obtaining full text.

The library at the Hong Kong University of Science and Technology (HKUST) is heavily used by the university's 6,000 undergraduate and 3,500 graduate students. In addition to printed book and journals, its collections include many thousands of electronic resources, such as journals, databases, theses, and e-books.

Searching for information from more than 300 databases to which the library subscribes was a challenge for the library's many users. Before the library implemented MetaLib, a user had to identify available databases from the library catalog, from a Web-based database list, or from subject and course guides; then the user had to search each database individually. As Mr. K.T. Lam, head of systems and digital services, explained, "like all accomplished researchers and Web-savvy students, our library users wanted to obtain the full-text articles easily, with the searching process as effortless and fast as possible."

As the university had successfully implemented a number of open-source solutions to manage its digital collections and course-management systems, it explored the option of adopting an open-source federated search system. After a thorough investigation, staff members concluded that open source—while valuable in many contexts—could not provide the robust connectors and comprehensive knowledge base that the library's resources required.

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In Search of a New Solution

After determining that the library needed a fresh start in its metasearch and linking services, library managers gathered a set of requirements from staff members and users. At the top of the list was a comprehensive knowledge base of targets, provided with out-of-the-box configuration. Users were very keen in their request a system with a rich set of features, such as faceted browsing, relevance ranking, de-duplication, RSS feeds, and search alerts.

ExLibris
MetaLib

CASE STUDY

Solution

The library began its quest for a new metasearch solution and link resolver in 2008. Having previously examined and ruled out open-source options, the library staff conducted an intensive evaluation of local and global products and concluded that the MetaLib® gateway and metasearch solution and the SFX® OpenURL link resolver best suited their users' sophisticated requirements.

Results

HKUST PowerSearch, powered by MetaLib, has substantially improved the ease with which users search for and obtain electronic resources. As one user put it, "I really like the idea that I only need to log in once and can see results from different databases." In addition, library staff can rapidly update batches of objects and activate groups of targets.

In addition, the system had to support Chinese, Japanese, and Korean resources, enable users to set their own preferences, provide robust interoperability between the metasearch solution and the link resolver, and be easily customizable. For the team of librarians, open architecture and a dynamic customer community were important features to encourage the sharing of code extensions and APIs.

A rigorous evaluation process of available products concluded with MetaLib and SFX emerging as the solutions that could satisfy all the library's selection criteria. Particular benefits were the MetaLib KnowledgeBase and SFX KnowledgeBase; search and retrieval features such as faceted browsing; de-duplication of results and relevance sorting; and the solutions' open architecture, which would enable the library to integrate MetaLib into other university systems via its API.

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From Selection to Implementation

The smooth, straightforward implementation of MetaLib and SFX was completed in February 2010. MetaLib was launched under the branding HKUST PowerSearch, with SFX branded as Find@HKUST. Staff members and users immediately began to enjoy the benefits of seamless access to electronic resources via a single interface. Librarians noted that the workflow to configure new targets was much simpler than with their previous systems and that the SFX data loader enables them to update batches of objects and activate or deactivate groups of targets more rapidly.

Figure 1. The HKUST PowerSearch system, powered by MetaLib

The library received extremely positive feedback from its students as well as from library professionals. Typical of the feedback were comments such as "I am happy that our library made an important improvement on the search engine" and "I really like the idea that I only need to log in once and can see the results from different databases." Users also note that being able to create their own database sets and save their search results are extremely useful features.

MetaSearch for the Future

HKUST has already begun making plans to integrate MetaLib into its future information strategy. Mr. Lam explained: "We anticipate the need to continue to improve and enhance our information discovery infrastructure. By making use of the open architecture integral to MetaLib and SFX, we will be able to plug federated searching and article-linking capabilities into our discovery systems." As part of this strategy, the library has made MetaLib and SFX accessible from the library's SmartCAT library catalog, the HKUST Institutional Repository, and the library's home page.

"Primo Central will help improve the speed of searching for our busy information seekers, as they will only need to search in one place and will benefit from instantaneous, relevance-ranked results,"

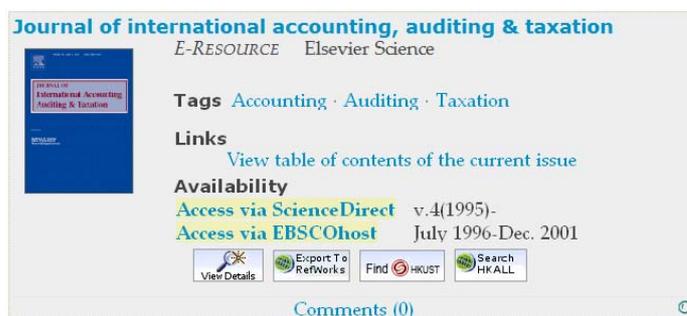*Figure 2. The HKUST Web site, showing PowerSearch embedded in the home page*

Figure 3. A record in the SmartCat catalog, showing the Find@HKUST (SFX) button

Looking ahead, library staff members are excited to provide access to the scholarly content of the Primo Central Index. "We welcome the upcoming availability of resources indexed by Primo Central for the MetaLib customer community. It will help improve the speed of searching for our busy information seekers, as they will only need to search in one place and will benefit from Primo Central's instantaneous, relevance-ranked results," observed Mr. Lam.

"With its real-time article-level recommendations, bX is another attractive service for HKUST and is being actively explored by our team," added Mr. Lam.

A Lasting Relationship

Reflecting on the library's relationship with Ex Libris both during the implementation phase and now that the solutions are live, Mr. Lam observed that "Ex Libris staff are knowledgeable and helpful, and support staff are responsive to inquiries and problem calls. It is encouraging to see the company's commitment to support open architecture."

"Throughout the project," Mr. Lam concluded, "the dedication of the Ex Libris implementation staff was exceptional."