

Implementing cross-search tools: challenges and opportunities

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At UCL Library Services, we implemented a metasearch or federated search product, MetaLib¹ from ExLibris, in 2005. The aim of this article is to give an overview of how we see such a cross-search product fitting in to our library services, based on a case study of MetaLib, and to help readers identify some of the issues involved, to inform their own decision-making.

The underlying questions are whether a product for cross-searching scholarly electronic library resources can rival popular “free” tools such as Google and, particularly, to what extent we can let the technology “do the talking”. What impact do such tools have on the training needs of our users?

UCL context

UCL Library Services exists to support the mission of UCL in teaching and learning, research and clinical practice. Metasearch tools must be evaluated for their place in supporting users in each area, with their range of different information needs and searching behaviours. Information skills training at UCL is not centralised, but is devolved to subject specialists. These staff, complemented by those handling point-of-need training at enquiry desks, decide which resources to promote to users, and how to do so.

Prior to MetaLib, the library website² was the hub for access to all electronic resources, using A-Z and subject-based lists of both bibliographic databases and electronic journals, plus subject guides to other key web resources. After implementing the SFX OpenURL linking tool in 2004, providing a very popular single route to full text, we also wanted to provide a single starting point for searching bibliographic databases. We felt that this would have time-saving benefits for both novice users and experts, support all types of user from undergraduates to research staff, and replace parts of our library website, with additional functionality. We chose MetaLib because it was the most mature product on the market and integrated well with our existing products (Aleph and SFX) from the suppliers, Ex Libris.

MetaLib implementation at UCL

MetaLib was implemented at UCL between January and September 2005., with a comprehensive testing, training and piloting period during the summer vacation.

The project was overseen by a project board of senior library managers. The day-to-day work, of customising the content of MetaLib and its web interface, was done by a project manager, supported by small working groups of library staff.

At its launch, MetaLib was promoted through as many different media as possible: web pages, printed leaflets, free pens, induction and training by subject librarians, and departmental briefings.

Features of MetaLib at UCL

During the implementation phase, several usability decisions had to be made, including the following:

Login encouraged

We encourage upfront login to MetaLib, with the standard UCL login, which includes simultaneous AthensDA and EZProxy login. This ensures full searching access for offsite users, and access to the personalisation features of MetaLib. Although the MetaLib software can be configured to allow users to start as a “guest” and then log in at any point, if necessary, we felt that it would be more confusing for people to learn when and how to log in.

CrossSearch shown as first screen

Our users enter MetaLib at the CrossSearch module, as we felt this was the main selling point of MetaLib. We opted not to offer MetaLib’s QuickSearch module, which allows “Google-style” searches of pre-determined sets of resources. The advice of the project team was that users should be encouraged to choose which resources to search, rather than being shoe-horned into a “lowest common denominator” set.

MetaLib vs A-Z website lists

To smooth the transition for users, we did not immediately replace the existing A-Z and subject lists of resources on the library website, but eventually we did introduce deep links into MetaLib³. This eliminated duplication of effort in maintaining the lists, and helped users find their way into MetaLib.

A-Z e-journals not provided via MetaLib

We have not yet activated the e-journals module in MetaLib. We are still maintaining the database which underlies our website A-Z e-journals list, because this database contains licence information. In the longer term, including lists of individual e-journals alongside other electronic resources in MetaLib would seem logical, and some pilot users made this recommendation.

Challenges

Our experience of MetaLib has definitely been mixed. Some of the problems, in brief, are as follows:

MetaLib has a significant learning curve

MetaLib is not like Google. Google gives simple *and* effective search of the resources it covers. MetaLib gives rewards *if* you take time to learn it and its limitations.

Technical limitations of MetaLib

MetaLib is limited in terms of database compatibility, search features, search speed, and size of results set. MetaLib’s search syntax is opaque, and much more complicated than Google’s.

Training methods

MetaLib's benefits are very subject-specific, requiring subject-specific training. For example, cross-search works well for inter-disciplinary subjects, but much less well for biomedical users, who require complex, exhaustive searches. It has also been hard to determine whether to promote MetaLib to novice users or experts. It has benefits for both groups, but also limitations.

Customisability

Buying a third-party product always limits usability changes. In addition to functionality which customers cannot change, it is also inadvisable to make too many interface changes, to avoid unwanted side-effects and maintenance overheads.

Evaluation

We are conscious at UCL of a need to do some research into user behaviours, preferences and feedback, in order to market MetaLib more accurately.

Opportunities

There have, however, been service gains from implementing MetaLib:

Resource discovery

Anecdotal feedback suggests that users have discovered some subject resources for the first time because of MetaLib.

Single starting point

MetaLib can be offered as a single starting point for the user looking for information on a topic. Particularly in a quick enquiry desk encounter, it is easier to get a user started with cross-search than with a website list.

Inter-disciplinary searching

As mentioned above, users whose research crosses disciplines are pleased to save time by cross-searching. MetaLib allows users to create their own sets of resources, not just select from discrete subject listings.

Link generator

We have created a simple tool⁴ to enable lecturers to generate a link to a subject list of resources in MetaLib, for inclusion in a VLE or other course webpage.

Export to citation managers

Users have appreciated the ability to export references into Reference Manager or EndNote from a wide range of resources at once.

Conclusions

Both technology and training are needed

It has been abundantly clear that the technology offered by MetaLib (and other current metasearch products) cannot substitute for training. MetaLib offers a valuable new service, but most users will still need training.

Advances in metasearch

Metasearch products are being improved by vendors. For example, MetaLib 4.0 promises improvements in customisability and some new search features. So there is scope for the technology to become more intuitive to users.

Harvesting rather than cross-search

Metasearch is limited by the functionality and performance of the individual component databases. The only way to offer a faster, more controllable search is to harvest records from the individual resources and build a mega-database. This is essentially what Google does with its indexing, of course. The new product from Ex Libris, "Primo"⁵ is looking to start this trend, but only initially for locally owned resources – there are inherent difficulties with harvesting records from licensed databases.

Get your data out there

If we build it, they won't necessarily come (to our website). In addition to presenting our subscription resources in the most user-friendly way, and with training to add value, we also have to promote our subscription data within the users' existing workflows. If they're using Google Scholar, or PubMed, we can already flag our data in those places⁶. We need to continue to look for ways to make our data more widely discoverable. Federated search is just one technology in the toolbox. And for all the technology, we still have a valuable asset in the training we can offer, to improve the user's finding experience.

Footnotes

1. UCL's MetaLib is available to guest users (with access to public resources only) at <http://metalib.ucl.ac.uk> – click on the "GUEST ACCESS" link below the login button.
2. <http://www.ucl.ac.uk/library>
3. <http://www.ucl.ac.uk/library/database>
4. http://www.ucl.ac.uk/library/database/mlib_linkgen.php
5. <http://www.exlibrisgroup.com/primo.htm>
6. For example, via SFX exports to Google Scholar, together with Scholar Preferences; and via SFX export to PubMed LinkOut.