Metasearching seems like such a simple idea from the patron’s point of view. Many a library patron has probably longed for the day when the electronic age really has arrived in their library and has made “one-stop” digital shopping possible. On that happy day, any patron could search all the relevant resources their library had to offer in a single sweeping search. To librarians experienced with commercial search services offering cross-database searching features like Dialog’s OneSearch, the promise and the problems might seem more familiar.

Today’s metasearching (also known as federated searching) is still in its infancy and has not proven as easy to implement or as uniformly agreeable to librarians and their patrons as its great promise might have led one to expect. We believe this has to do mostly with the problems of dealing with the unique origins and different features of the wide variety of databases. Of course, the ideal promised by metasearching would make searching library resources and databases as easy as it is to search — say — Google, but with the important difference that these searches would tap library-provided databases. And these highly rated databases would, in turn, give patrons reliable, authoritative information and not just the ranting of anyone with enough Web skills to put a page on the Internet.

Implementation

My own California State University, Northridge (CSUN), implemented MetaLib, an Ex Libris product, and went live with The Oviatt Library MetaSearch in August 2004. CSUN’s implementation is perhaps unique in that the implementation occurred in cooperation with the CSU Chancellor’s Office, where the MetaLib server resides for all 23 CSU campuses. From the onset, the Chancellor’s Office and the different campuses agreed upon a division of responsibilities. First, we sent a list of our databases and other resources, the vendors, and the local URL to the Chancellor’s Office to be entered into CSUN’s version of the MetaLib KnowledgeBase. Our patron data was also sent there for authentication purposes. Even with the expert help at the Chancellor’s Office, the implementation took a considerable amount of time.

Any large library should probably plan on an extended timeline for implementation of such a service, but most especially a large academic library with many subject specialists, each of whom needs to be consulted about what databases would potentially interest students in various disciplines. One needs a list of databases on a topic to identify the most relevant and useful for those doing a metasearch (at least in the MetaLib product).

Second, it took a team effort at our library to customize and implement the look of the search interface. It was not easy to get agreement about the look, feel, and content. MetaLib also allows your library to set up a general or quick search interface that automatically searches the most popular and/or interdisciplinary databases. Again, this may or may not lead to some contention depending on your MetaLib implementation team — or the library’s bibliographers.

Training the librarians is very important to the success of a federated or metasearch project. Essentially, you need to train staff to teach federated searching to patrons. Success can vary even if all the librarians are well-trained in how to use it. Marketing the new service is also critical to guarantee success, as some of the patrons search and navigate our library Web pages on their own. Put it all together and it amounts to what we call the good, the bad, and the ugly parts of the current state of the art in metasearching.

The Good

In principle, federated or metasearching does allow one to do one-stop shopping to find search results. In MetaLib, for instance, once you see the list of relevant databases, you can designate up to eight databases — the ones likeliest to give you relevant results — for simultaneous searching. (Compare
that with the dozens and dozens of databases which Dialog's OneSearch allows.) So at a glance, you can identify the most relevant (useful) databases in a discipline, as opposed to scrolling through the often more than 100+ databases that many academic libraries offer and searching likely databases one by one. MetaLib also provides a personal portal to its information resources of most interest. In MetaLib, you can even maintain a personal database list and a personal e-journal list.

Records (citations) can go into a personal folder for later viewing and potential action. Search alerts can be created for multiple databases all at once. This allows you to automatically be alerted to new articles of potential interest to your research topic. In academia, this feature has great appeal to graduate students working on theses and dissertations and to faculty with an ongoing research interest. In the corporate world, this would benefit those with a need for the latest information and articles in their fields of interest.

The Bad

Not all databases are created equal or have the same standards. Some databases are not Z39.50-compliant, which can lead to a failure by some metasearching systems.

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your patrons and offer direct links to their native interfaces. Even with Z39.50-compliant metasearching, you often cannot conduct the more sophisticated and complex searching allowed in some of the individual databases. In the quick search option in MetaLib, for instance, you can only use simple searches with phrase, Boolean (AND, OR, NOT) operators, and truncation.

No searching for “near” (within a certain number of words either direction) is allowed, even if an individual database's native interface would allow it. Even in the MetaLib advanced search, you can only search “all the fields” allowable in Z39.50 compliance (all fields are defined as subject, title, author, ISBN, ISSN, year). Even the “refine” search options only give you the simple Boolean operators (AND, OR, NOT), but not “w/3” or “near” types of searches.

Basically the system will not allow you to do anything not supported by standardized features in all the databases polled — lowest-common-denominator searching. You don't have an option to search specifically in “abstract” or “content descriptors,” i.e., database thesaurus terms. All specialized features and functionalities of the native interface are lost, e.g., cited reference search. For example, you cannot limit results to scholarly journal articles, a popular request by students doing research. Patrons may not retrieve searching a database/resource not searchable through Z39.50 in our service, even though that database may be the most relevant.

Merge (or de-duping) doesn't really work well or reliably yet in MetaLib. The total search hits must number less than 150 records for it to work. This is not much help when most searchers want to de-dupe a large results set in particular.

The Ugly

While MetaLib is very often reliable and can yield good results, it can sometimes also work very slowly. When the system really bogs down, it sometimes seems to suspend searching of certain databases. We have found that many students do not seem to find their way through MetaLib and, instead, end up back at the reference desk asking for further help in actually connecting to journal articles. Although fairly intuitive to librarians, the interface does not seem as intuitive to students.

Conclusion

Still in its infancy, MetaLib offers much promise, but it is not yet a panacea. While some students and faculty have enthusiastically embraced MetaLib, many more remain cautious because of the problems they encounter in either navigation or system responsiveness. While MetaLib does offer some very nice features that faculty can use to great advantage in doing research, some find the slowness and loss of enhanced searching features a deterrent to using MetaLib on a regular basis.

While we strongly believe that federated or metasearching will continue to improve and ultimately make searching the myriad of library resources more easily accessible to many, it still has a way to go and a number of improvements to make before it gets there.