

Birth OF A New Platform



THE VIEW FROM A UNIVERSITY LIBRARY

For many librarians and information professionals, publisher and platform consolidation within the information marketplace has caused concern.

Mergers make us worry that a noncompetitive atmosphere will result in stagnation of platform and tool development and, worse, decrease choices in access options coupled with unchecked price increases.

Elizabeth Ten Have

Director, Library Academic Partnerships
Drexel University Libraries

There is a clear upside to the publisher and vendor consolidation of the last 2 decades: fewer and better search platforms. Nearly every library, regardless of type, now provides access to a plethora of electronic resources. Many of these are licensed or purchased for a fee, and a small but significant number are free (but likely populated with advertising if not sponsored by a governmental organization). Electronic resources encompass a growing variety of content: text, image, moving image, sound, numerical data, geospatial data, etc. The search and discovery interfaces for each are different. Library patrons in any setting can be easily confused or lost before even getting to an electronic resource — patrons don't know which one to choose, and then, when they get to it, they can be lost in an interface that they have rarely or never used. And so patrons often resort to using resources that they trust and are comfortable with, but that may be wrong for the task at hand. It's akin to using a spreadsheet program to write a memo because you are not knowledgeable about word processing or you simply don't have time to learn a new thing. New search platforms, many coming as the result of mergers and acquisitions within the information industry, address these issues.

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The Setting

Drexel University, based in Philadelphia, was founded in 1891 as a nondegree-granting institute of higher learning, training men and women for jobs in science and industry. It first granted bachelor's degrees in 1914, master's in 1927, and the Ph.D. in 1965. In 2002, the Drexel University College of Medicine was formed through acquisition of MCP Hahnemann University. In September 2006, the university welcomed the first class of students to its Earle Mack School of Law. Drexel has two campuses in Philadelphia: the main campus located in University City and the health sciences campus in Center City, about a mile and half away. In January 2009, the university opened a third campus, for graduate studies, in Sacramento, Calif.

Drexel is a high-research university with 11,550 students enrolled in 73 undergraduate programs and another 6,000 students studying in 78 master's and 32 doctoral programs across 11 schools and colleges. The university has a long tradition of distance education, with more than 4,000 students in online degree programs, mostly at the graduate level. These students, scattered across geographical regions and time zones, pose a particular challenge when thinking about library and research support and electronic resources.

Drexel's long-standing academic focus on applied study has had a significant impact on the library's collections. The print collection is fairly small at just over 500,000 volumes. Historically, collection development was done largely on the basis of acquiring what was needed at the time and not what "might" be needed in the future. Although this has changed in recent years with the university's disciplinary growth, we are very dependent on digital journal archives, interlibrary loan, and digitized books for access to older materials. This digital dependence is coupled with Drexel's history as an early adopter of electronic journals^{1 2} as well as our more recent efforts to increase patron seating by heavily weeding the print journal collection, replacing those volumes with digital journal backfiles. The Drexel University Libraries currently provide access to more than 28,000 electronic journals; 121,000 electronic books; and more than 550 databases, which access full-text print, reference, image, and data collections.

At Drexel, the university libraries have not been able to keep up with the university's enrollment growth in terms of space. In fact, as enrollment has grown, the libraries have lost space to other departments and schools. The space limitations at the libraries encourage students to work remotely, placing more importance on electronic resources and tools.

Like other university libraries, we are subject to the same social and technological forces and trends that shape student

behavior. Most prominent are the effects of free, web-based tools such as Google and Wikipedia on the learning and research practices of undergraduate and graduate students.

At Drexel, the combination of limited library space, growing numbers of online distance students, a robust collection of electronic resources, and our patrons' general preference for all things electronic means that we take great care with our virtual space and our electronic collections.

Patron Confusion

In libraries we have become a bit blasé about the large number of electronic resources. But have our patrons? When faced with hundreds of databases, what does the average undergraduate student choose? When navigating the library's resources, from a distance and without assistance from a librarian, what do our patrons do? They likely turn to something that has

Learning in 2006. This sparked an effort to bring together, in one platform, the numerous and diverse information assets of the new entity, ProQuest, LLC.

For many years, the Drexel University Libraries have subscribed to and purchased electronic resources from CSA and ProQuest and their subsidiary companies, Community of Science, Chadwyck-Healey, and RefWorks. Currently our subscribed content covers a broad range of subjects and types of databases on four different platforms. For example, on the ProQuest platform we subscribe to ABI/INFORM, the ProQuest Research Library, and ProQuest Historical Newspapers — *The New York Times*. On the CSA Illumina side, we have databases such as Earthquake Engineering Abstracts, MLA International Bibliography, CSA's Biological Sciences, Philosopher's Index, and EconLit. On the Chadwyck-Healey platform, we have International Index to Music Periodicals as well as International Index

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been successful for them in the past, regardless of whether it is appropriate. If they do venture into another resource, the change in interface and the differing rules of searching (which are often hidden from them) can hinder success in searching. The change in interface can also cause dilemmas for patrons trying to work with search results. Where is the email option? How do I get a citation for this item? Can I save my search to run it again in the future? And so on.

Typical Drexel students start in the freshman writing sequence with a general interdisciplinary database. As they move through their academic career and deeper into their major field of study, students will need to use many other databases and e-resources, each with its own look and feel. Ideally, librarians are present along the way, through classroom visits, links in learning management systems, reference interactions, and outreach programs of every shape and size. Despite these efforts, many of our patrons are working solo and don't ask for help. It is incumbent upon us to provide resources and systems that facilitate successful discovery and management of information.

ProQuest & CSA

The merger of CSA and ProQuest began with Cambridge Information Group's acquisition of ProQuest Information and

Performing Arts. And last, on the Community of Science, we subscribe to the three-database suite of Funding Opportunities, Workbench/Profile, and Expertise.

All in all, Drexel has about 31 databases across the four platforms, from general interdisciplinary resources to specific, subject-based, in-depth resources. In spring 2009, ProQuest contacted us to ask if we would take an early look at its new search platform and provide feedback for refinements and continued development. As steady subscribers to this broad range of content on the four platforms, we were intrigued. We could see where content available on one platform would be complemented by content on the other. At Drexel, there were several areas of study and research for which we routinely recommended that patrons search on both platforms. Here was a chance to participate in the conversation and to represent our patrons in developing a platform that brought all of this content together using a unified search engine and interface and a robust set of tools for search and management of results. This opportunity was too good to pass up.

In summer 2009, the ProQuest development team visited us to explain their rationale and planning process. We included reference staff from across the libraries as well as a group from the University Libraries Technology team. In the following 6 weeks, we ran numerous searches, tested outputs and downloads, and

compared results with searches run on the legacy platforms, Illumina and ProQuest.

It was immediately clear that what we were seeing was more than a combination of platforms and more than a facelift of interfaces. There was something different about searching, and, while the new combination of content was certainly part of it, the search results were more relevant. We came to learn that ProQuest had built a new system from the ground up, based on FAST search technology. There is a single unified index, database-specific thesauri, and controlled vocabularies.

The look and feel that we saw in our first round has stayed largely stable throughout the process. Once connected, the searcher is presented with a single search box posed to search all the available licensed content. This screen, while quite clean-looking, is not Google-like. Subject-specific subsets of the licensed content are available for selection, identified by titles and images, from a display bar running underneath the search input box. Also available are links to an advanced search, a direc-

tory of databases, a list of publications, help links, and search history among others (see Figure 1 below).

The first release tested at Drexel was not complete in terms of content or the planned feature set. The ProQuest development group provided us with documentation at each stage; this helped keep us focused on testing what was present and not questioning what wasn't.

Following a round of feedback, we were given access to an updated version the following fall. In this round, we saw increased functionality largely around management of retrieved items in addition to updates and bug fixes. This second round coincided with our annual instructional program for Drexel's freshman writing sequence, and although we couldn't use the new platform, we did begin to think about how it could simplify parts of our instructional program.

Initially, there were some concerns about possible loss of features unique to individual databases, such as controlled vocabularies. Happily, none of these features have been lost. When an individual database with unique features is chosen for searching, the advanced search page provides for field-specific searching and provides links to the appropriate thesaurus and help files.

In spring 2010, we joined a larger group of customers in a more formal round of testing. At this point, the look of the interface was settled and more polished, the content was fully up-to-date, and the toolset was stable and largely working without glitches. We again engaged in a round of searching and began to spend more time with the management and tool attributes: exporting to bibliographic management software, using tagging and My Research features. In fall 2010, the last level of testing began, and again Drexel joined a broad group of libraries.



Figure 1



Figure 2

Evaluation

The first advantage for a library to having these once separate resources on a unified platform is the ability to build customized database groupings. Each resource can be accessed individually and also combined in discipline- or subject-specific groupings determined by the subscribing institution. For example, a university such as Drexel with a program in public health could build a public health grouping, which would combine the medical, sociological, public policy, and world affairs resources to which it subscribes. Each subscribing institution can host up to 16 subject-based groupings. Individual databases can be assigned to more than one group; for example, at Drexel, EconLit is in the Business group as well as the Social Sciences group.

Patrons can easily see which databases are included in a group by hovering over the database group image on the basic

search screen. They can select individual databases from that display as well (see Figure 2 at left). Results of searches done in subject-based groupings can easily be analyzed and limited by the “source” database via the “narrow results” panel. Individual databases maintain their unique URLs for easy linking from the catalog, A–Z lists, database directories, research guides, and the like.

An in-depth analysis of the specific databases offered on the new ProQuest platform is not possible here given the range of content. What follows is a broad overview of its features and overall performance. First, it is fast, and there do not appear to be limits on the size of a search result set. So a searcher can begin with a very common term and use the new search features to narrow a large result set down to an appropriate search result. There is a full range of new search features, the largest of which will not be visible to patrons until they have completed an initial search.

Helping to initiate search is an autocomplete or suggested-term feature. When a searcher begins to enter a term into the search box, an alphabetical list of popularly searched terms beginning with those letters is displayed for selection (see Figure 3 top right). This type of feature has become common in popular web search engines, so patrons may not even notice it here, but they will use it.

The autocomplete feature is one of two spelling aids; the other is presented after a search has been run in the form of a “Did you mean: _____” link that appears on the search results screen under the originally input term(s).

These features also appear when using the Advanced Search feature (see Figure 4 at right). This screen changes a bit depending on which database(s) have been chosen for searching. Unlike previous platforms, the options available on the Advanced Search screen do reflect the individual data points within databases. For example, a searcher will not be given an option to choose a document language if the database being searched does not contain information about source document language, or if they are all in English. The Advance Search screen links to database-specific thesauri as well. When a database grouping has been chosen for search, clicking on the thesaurus link offers access to all of the thesauri related to the databases within the group. In addition, ProQuest has built a “master” thesaurus, which is offered whenever a group of databases is chosen for search.

The results of a search appear front and center on the search results screen (see Figure 5 at right) under a banner that repeats the search query and suggests related subjects, which only need a click to run. Options for narrowing, or limiting, search results



Figure 3

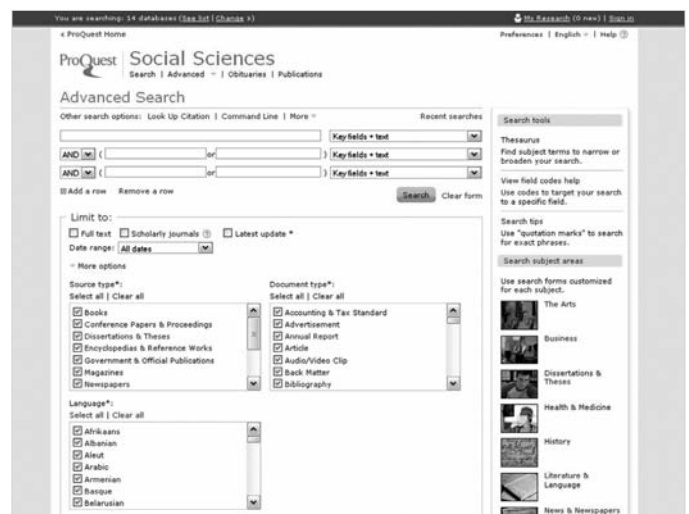


Figure 4



Figure 5

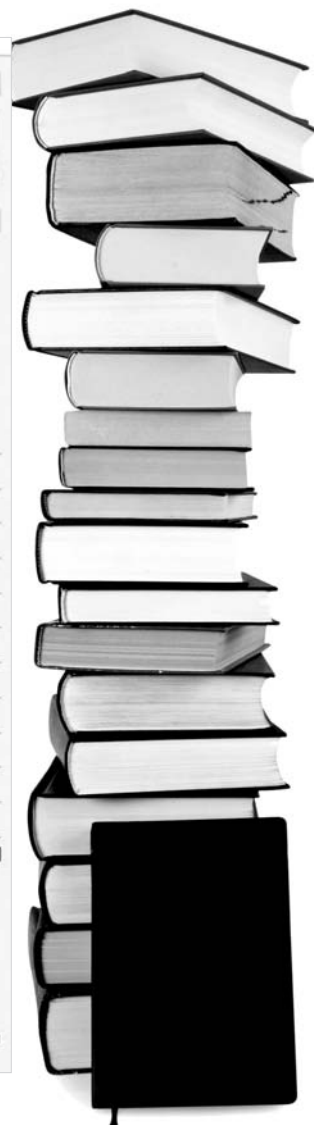


are located in a vertical panel that runs along the far right of the search results screen. Results can be reordered by date (“oldest to newest” or “newest to oldest”) from the default of “relevance” from check box at the top of this vertical panel. Options for modifying the search, beginning over, moving to advanced search, or limiting by full text or scholarly journal sources are all available, as is the ability to search within the result set. Searchers can also manage the search itself through saving it, or transforming it into an alert or RSS feed. The search results display is clean and uncluttered despite the wide range of possible activity which can be launched from it.

Options provided for narrowing search results are a wonderful new component of this search platform. These options, presented without the searcher having to click to see them, are consistent across databases and when searching groups of databases. Figure 6 at right shows a typical “Narrow results by” panel. Search results can be narrowed by any of these parameters, which are easily expanded by clicking on the plus sign (+) that appears next to the parameter heading. Once expanded, the narrowing parameters within the panel provide an analysis of search results. A very welcome new feature is Exclude, which becomes available when a narrow-by parameter is expanded and “More Options” is chosen. Here, all of the definitions of that parameter are displayed, and the searcher is able to “Include” or “Exclude” any of them individually from the search result. Figure 7 on page 27 shows this with the location parameter expanded, which provides the ability to refine, quite easily, by geographic location. When working in a database without controlled vocabularies or within a database grouping, there will be variations in terminology about which this feature will provide alerts while still giving searchers the ability to effectively use search terms.



Figure 6





offers the same experience and options as offered in a search of a database. Improvements facilitate moving around within issues of an individual publication. For example, you can now move back and forth between issues of a publication without returning to the publication's homepage (which required use of the browser's "back" button in the past).

Subscribing institutions with historical content will be very pleased to see that searching can be done across the current and archival files. For Drexel, this is very helpful, as it effectively merges our electronic holdings for *The New York Times*. Being able to search the historical newspaper content alongside the current content in addition to the other files removes a barrier to access for this important resource.

Another terrific feature is image searching. CSA's Illustrata files provide the basis of much of the image content, but there is more. For example, a search of the term "golden retriever" limited to images or photographs yielded search results from the historical newspapers file, newspaper stories accompanied by photographs of golden retrievers. Searching for graphs and tables of specific types of data or information is also easily done by clicking on the "Find Figures & Tables" link that appears at the top of the search result screen. A search for North Pole and temperature* limited by figures and tables retrieved a number of solid results that would satisfy the research need of many of our students.

Conclusion

To be part of the conversation developing the new ProQuest tool has been rewarding, and we are excited about sharing it with the Drexel University community. For us, this new platform brings together many heavily used resources into a single, uniform space. It reduces a significant set of barriers to important research and scholarly content by providing a simple yet sophisticated search engine and interface, with access to a robust set of management tools. ■

Elizabeth Ten Have is director of library academic partnerships at Drexel University Libraries. The author wishes to thank Eleanor Goldberg and Rebekah Kilzer, Drexel University Libraries, and Scott Maynard, ProQuest, for their thoughtful review.

Endnotes

- 1 Tom Hogan Sr. "Industry Reports: Drexel University Moves Aggressively From Print to Electronic Access for Journals," *Computers in Libraries*, 21(5): 22-27 (May 2001). Retrieved Oct. 10, 2010, from Research Library Core (Document ID: 73025196).
- 2 Carol Hansen Montgomery. "'Fast Track' Transition to an Electronic Journal Collection: A Case Study," *New Library World* 101(1159):294 (2000). Retrieved Oct. 10, 2010, Education Module, ProQuest. Web.

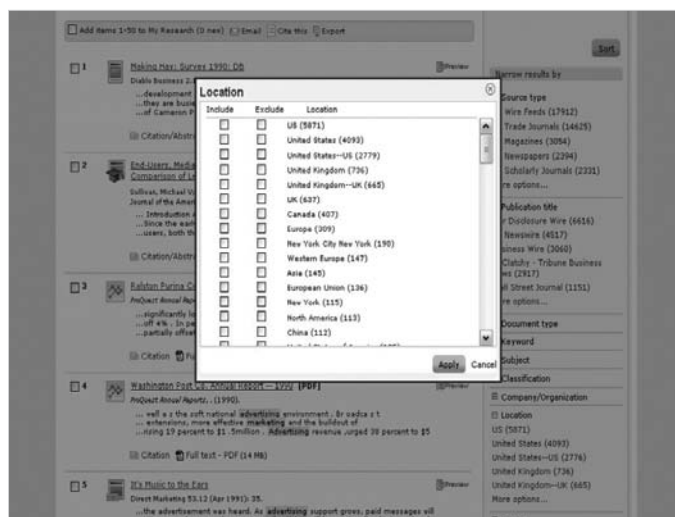


Figure 7

When searching individual databases, click on "browse" in the upper banner area under the database title to access features unique to that database. This is consistent with functionality in the old ProQuest platform. For example, in ABI/INFORM Complete, Browse provides direct access to specialized document sets within the database, such as the Annual Reports collection and the Economist Intelligence Unit (EUI) commodity and country reports. In International Index to Music Periodicals, Browse provides access to a collection of Opera Synopses, as well as a Pronunciation Guide and A-Z Glossaries of music fundamentals and musical terms.

Direct access to individual publications subscribed to by an institution remains. Searching within an individual publication