



UNC Expands E-Journal Access

by Patrick J. Mullin and Andy Ingham

The Professional Development Committee, which coordinates the "PDC Desktop Learning Opportunity Series," encourages members to explore professional development offerings and opportunities at the local, regional and national levels. We welcome your comments and article suggestions. Please contact Lori Hedstrom at 651/687-5891 or lori.hedstrom@westgroup.com.



How do your library users discover the full range of journal materials to which you provide electronic access? Are these resources included in your online catalog? Do you maintain a separate e-journal list or database? How inclusive are these discovery tools?

In December 2001, the University of North Carolina at Chapel Hill appointed the Committee on Electronic Journal

Access Systems to look at these access questions. The libraries had a database of e-journals that included the nearly 6,000 titles the libraries had subscribed to electronically over the years. This database included subscriptions to individual titles, as well as to titles in certain collections such as JSTOR and ScienceDirect. However, the database did not include all of the e-journals to which users had access. Comprised of public and technical services librarians and systems staff from the health sciences library, the law library and the main library, the committee investigated how to improve and expand the university libraries' e-journal database and access to those journals.

Over the years, as the traditional indexing and abstracting services provided increased capabilities and content, they added access to full-text or page images for many of the journal titles they indexed. Gale, EBSCO and LexisNexis™ represent some of the aggregators of information who expanded their services to include not only indexing for journal collections but also access to a great deal of the journals' contents. Students and faculty like the ability to search topics in these databases and not only retrieve citations but also click to the articles cited.

What if a user only has the citation but wants to find out if the journal title is available electronically? Over the years, the UNC-Chapel Hill reference staff had created resources for some of the schools and departments where they worked. For instance, one librarian created a list of primary social work journals available in electronic format and posted it on her Web page. At least twice a year, she updated this page as date coverage changed, new databases were added or old ones were cancelled. But,

for a campus of UNC's size, this approach was neither sustainable nor desirable for all departments and schools.

All the campus libraries had cataloged the titles that it directly subscribed to, but for a variety of reasons, the library had not cataloged each of the titles available with full-text or page images in these aggregator databases. Date coverage changed as vendors received permission from publishers and titles came and went from vendor lists. The libraries also changed vendors often enough that the staff knew its libraries could not maintain the information accurately.

The university libraries staff's goal was to recommend to administration a single discovery method that would cover all electronic serial publications. These would include direct subscriptions, those available through the aggregator databases and selected free Internet resources. With a small university grant in support of distance education, the committee began a process it believed would benefit all library users.

Sorting Through Options, Establishing Priorities

At the end of 2001, the committee began by examining the systems and services that had arisen to help libraries cope with these e-journal-access issues. After reading journals and promotional literature, the committee identified five organizations that provide such e-journal-access services. The committee reviewed the companies' Web sites, requested marketing information, and invited their representatives to campus to discuss their systems and services.

In reviewing the systems and services from the five organizations, the committee found it difficult to compare the organizations because each offered different functions and features. One included an alert service to notify a user that a new issue had become available. Some vendors included links to journal tables of contents when possible. Others provided bridges to the catalog for information about print holdings. Different levels of customization were possible with the user interface. There was some overlap in searching capabilities, such as A-Z lists and title search. At least one company offered the ability to search by subject. The data quality and the scope of publishers covered seemed to differ. Some vendors supplied data only, while others offered their data as an optional component of a more comprehensive solution, and the frequency of updates varied. Several of the organizations offered statistical reports. Some systems the committee reviewed were hosted on the Internet by the vendor on its

server; others offered the user the option to host the system locally. At least one provided linking from citations to content using the OpenURL standard. The costs for these services differed dramatically as well, ranging from as little as a few thousand dollars to tens of thousands of dollars.

The committee sorted through all of these offerings. What services did the libraries want to offer their users, and how could the libraries best accomplish those goals? The committee discussed and prioritized each of the functions or features in the vendors' demonstrations. The major functional requirements for UNC-Chapel Hill were:

- Reasonable cost (one-time and ongoing);
- The ability to co-list resources from aggregator packages with non-aggregator titles;
- Control over the look and feel of the public interface;
- Control over the design and function set of the staff interface (for managing the data content);
- Control over how statistics were gathered so the libraries could be certain of standardization;
- Subject access to the content (preferably with local control over the subject thesauri);
- Control over the configuration of the application software (i.e., hosting the interface and content locally);
- Data quality;
- Frequency with which the data would be updated; and
- Compliance with linking standards (OpenURL and/or SIC1).

Items of lesser importance were the ability to incorporate print holdings into the listings, the availability of comprehensive tables of contents and alert services (for receiving notifications of the availability of new issues).

The committee now had a matrix of features and organizations, but there was no clear choice as to which vendor to select. The committee asked the vendor organizations for references from their current customers. In several cases, the committee set up test accounts it could use to check on some of its concerns, such as quality control and user-interface customization.

Choosing a Hybrid Approach

After this additional review, the committee proposed a hybrid approach to the libraries' administration, using concepts from UNC-Greensboro's Journal Finder, <http://journalfinder.uncg.edu/uncg/help/about.html>; data from e-journal data provider Serials Solutions, <http://www.serialssolutions.com/home.asp>; and modifications to its existing database. Upon approval, the real work began in earnest.

The time commitment required for such a solution was considerable, but this solution provided the best combination of benefits at the most reasonable cost. Because UNC-Chapel Hill already had a Web-based database of resources in production use, the challenge was how to accurately manage the introduction of such a large quantity of external records, both from the database-integrity side (e.g., how do the libraries effectively avoid duplicate entries?) and from the public-interface angle (e.g., how do the libraries effectively present lists that are several orders of magnitude larger than before?).

AALL Professional Development Program Competencies of Law Librarianship

- 1 Core Competencies
- Specialized Competencies
- 2 **Library Management**
- 3 Reference, Research and Client Services
- 4 **Information Technology**
- 5 Collection Care and Management
- 6 Teaching

This article addresses the AALL Specialized Competencies on Library Management and Information Technology. The complete AALL statement of Competencies of Law Librarianship is online at <http://www.aallnet.org/prodev/competencies.asp>.

The database contains two main tables, EID and EJOURNAL. The former contains records for electronic indexes and databases, while the latter holds records for electronic journals. Early in the development process for the new system, the committee decided that each aggregator for which Serials Solutions would manage content must have an entry in the EID table. The EJOURNAL table then was altered to contain a reference to the unique ID number (EIDID) for the "umbrella aggregator" of which any given e-journal was a component; this provides the necessary link from children to parent records.

Database integrity was addressed via a set of perl scripts used to manage the data from Serials Solutions. When the libraries receive their bimonthly datafile from Serials Solutions, which consists of a comprehensive list of the components of the resources Serials Solutions manages for the libraries, the libraries use that data as input to these scripts. The main script runs through a complex set of checks before adding a resource to the libraries' local database; updating a resource in the libraries' local database with information from the current Serials Solutions datafile; or deciding that, for any of a number of reasons, it cannot take any action on the given resource. Reasons for inaction by the script could include a failure to match on the umbrella aggregator name, a match on multiple umbrella aggregator names, a possible initial article or matching on multiple current records for a given e-journal title from a given umbrella aggregator. After a staff member manually reviews the contents of the various exception files, the items can be resubmitted to the initial script. The records should either be added or should update existing records, as appropriate. This process is repeated in an iterative fashion until all lines of the initial Serials Solutions datafile have been successfully handled by either adding or updating records.

At this point, another script is run to apply standard values to each of the recently added e-journal records, based on the value of its parent EID record and linked via the reference to the umbrella aggregator record contained in each e-journal record. The attributes updated for the newly added e-journal records are subscription end date (driven by the subscription of the resource of which these titles are components); medium (all of the aggregator titles are "Web," but other records in the database can be "CD-ROM"); access restriction type; vendor and provider (respectively and as appropriate, the entity that provides the resource and the entity that acts as the middleman between UNC-Chapel Hill and the vendor); the staff member who selected the resource; and the status of the resource ("active," "cancelled," "potential cancellation," "re-activated" or "temporarily unavailable").

The final step of the process involves searching the local database for any Serials Solutions-managed resources that aren't in the current datafile (and therefore indicate something the libraries no longer have

(continued on page 36)

access to because the list from Serials Solutions is comprehensive). The output from this last step then has to be reviewed manually to see if items appear because they actually are titles to which the libraries no longer have access to or rather because Serials Solutions' version of the name differs from the libraries' version of the name. In case of the former, the record should be masked from display. For the latter, the different names need to be reconciled and the additional record deleted.

Debating the New Format

Phase I of the new "Journals in Electronic Format" debuted on Jan. 6. The system is new enough that evidence of user satisfaction or dissatisfaction is purely anecdotal at this point. There was some initial negative feedback due

to increased latency in response time from the system and changes to the user interface. Within four days, the library systems staff was able to migrate the database software to a newer version that allowed query caching, which has had a dramatic positive effect on response time. Due to the system's improved performance and the passing of the initial shock of the interface changes, most feedback is now about specific resources that do not work as expected.

The database grew from fewer than 6,000 records to almost 39,000 entries, providing users with access to all of those "hidden" e-journals in aggregator services. Phase II, which focuses on OpenURL linking (see http://www.niso.org/committees/committee_ax.html) from citations in one electronic

resource to the full text in another and bi-directional linking between the online catalog and the e-journal database, is now underway.

Check out UNC-Chapel Hill's university libraries at <http://www.lib.unc.edu/>. For more information about the libraries' journals in electronic format, go to <http://eresources.lib.unc.edu/ejournal/> — watch the new system evolve over the coming months!

Patrick J. Mullin (mullin@email.unc.edu) is associate university librarian for access services and systems and *Andy Ingham* (andy_ingham@unc.edu) is assistant head of library systems in the university libraries at the University of North Carolina at Chapel Hill in Chapel Hill, N.C.