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Do We have This In Full-Text?

Providing Access to Content in Full-text Aggregated Databases

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Based on a paper delivered at the 1999 Charleston Conference, November 1999, Charleston, SC. — KS

Fulltext electronic journals and fulltext aggregated databases have significantly extended the ability to deliver scholarly content to library users regardless of time or place. With this new ability and the accompanying rising expectations, a number of problems have emerged in terms of presenting and describing these electronic titles. Is it important to provide title level access to specific publications available in these databases? Specifically, how should librarians identify content in multiple aggregated databases? Moving beyond aggregated databases, how will libraries achieve integrated access to all electronic titles, including aggregated databases, free online titles, subscribed titles, and publisher-based packages?

This issue is very important since most academic libraries have multiple fulltext resources. Virginia Commonwealth University (VCU) Libraries have 16 major fulltext resources and titles from 21 different vendors and publishers. An informal review of six of VCU's peer institutions revealed that all had between eight and sixteen major fulltext resources. The CONSER Task Group on Journals in Aggregator Databases has undertaken a more formal fulltext resources survey of ARL & ACRL institutions. Early results indicate that most libraries have cataloged discrete online journal titles such as JSTOR and Project Muse using an individual OPAC record approach. The reporting libraries indicate that they have not cataloged many titles from aggregated databases due to the issues of record maintenance and staff resources. Access to aggregated titles remains a concern for most librarians and has resulted in most libraries developing in-house procedures for content access. There is discussion of approaching the issue in consortia. These results confirmed our assumptions of the prevailing practice of providing access to aggregator content.

There are a multitude of reasons why libraries should provide integrated access to the content of these resources. The development of the Web has increased user expectation and proven to our users that information can be just one click away. Library users may want the electronic versions of an article for many reasons, including printing, remote access, and assignment requirements. Library staff also benefit from an integrated access point to content in fulltext aggregated databases. Interlibrary loan may restrict services to those items held outside the library; therefore, staff must be able to quickly identify which titles are available in fulltext. Public services staff must be able to easily demonstrate and access the fulltext resources' content during reference transactions. Finally, collection developers need access to title lists for collection evaluation, cancellations or additions decisions, resource comparisons, and cost justification.

Several approaches have been used to provide title level descriptions of aggregated databases. Perhaps the simplest approach is to provide a link to each vendor's source list. While this entails minimal work for the library, it is a passive approach and does not provide an integrated portrait of the library's electronic collection. The end user must browse each aggregator list individually and there are no possibilities for searching or local access enhancements (e.g. subject headings). A more active approach is to merge each vendor's source list on a static library Web page. This can be rather easy to produce with few technical challenges, but like the vendor source list links, the end user must still browse through long alphabetical menus. Maintenance is also an issue here as such lists can become outdated quickly.

Many libraries have used, or continue to use, a combination of these two approaches. If the goal is integrated access, the most logical place to begin is the library catalog. This results in one access point for the entire library collection, both print and electronic. While many libraries have adopted this app...
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approach for stand-alone electronic fulltext journals, aggregated content is not yet common in the library catalog. The first major issue with this approach is that it gives an implied permanence to the resources, a problem since aggregator content frequently changes. Further, the technical challenges are not insignificant when one considers maintaining and converting these records into MARC format. One library that has added records to their catalog for aggregated content is the University of Tennessee-Knoxville Library (http://www.lib.utk.edu) (Example: search catalog for Virginia Quarterly Review). 3

The final approach being employed by a number of libraries is to create a separate database for electronic journal titles, including aggregated databases. This approach gives the user added functionality including the ability to browse a long alphabetical list, to search for specific titles, or browse by other criteria such as vendor, publisher, and subject. This is the approach that has been employed at Virginia Commonwealth University and is also gaining popularity among other libraries, including Indiana University, Old Dominion University, the University of Connecticut, the University of North Carolina-Greensboro, the University of Texas Southwestern Medical Center at Dallas, and Yale.

At Virginia Commonwealth University Libraries, the electronic journals database was developed in the spring of 1999. The steps to creating the database began with identifying all the library's fulltext resources, downloading the source lists, and then arranging them in text-delimited formats. 3 The files were then imported into a Microsoft Access database. Additional work was required to clean the data including adding ISSN's and other information that was not included in a source list. The database was connected to a Web server and a Web interface front-end was added using Cold Fusion software. The final step was to promote the database to the library administration and staff. In addition, the project requires continual maintenance and enhancements based on patron and staff use and future technological developments. The final product can be viewed at the following Website, VCU Libraries Online Journal Search (http://www.library.vcu.edu/ ejournals/).

Many other libraries have deployed similar databases of electronic journal titles. In doing so, they have used a variety of commercial and free software. At the VCU Libraries, Access and Cold Fusion were chosen based on their availability and the expertise of the project designers. A listing of other electronic journal databases is available for browsing through the Electronic Journals Resource Directory: Library Indexes (http://library.usask.ca/~scottp/links/Library Indexes/). Four notable examples of the separate database approach that demonstrate different types of architecture and search features are ODU, Indiana, JAKE (Yale), and UNC Greensboro.

Old Dominion University’s Periodical Title Database (http://www.lib.odu.edu/ forms/periodicalsearch.shtml) was built with the open source software MySQL and Perl. ODU incorporated all library serial titles, print as well as electronic, into this single database. 4 Indiana University’s Locating Online Fulltext Journals and Newspapers resource (http://www.indiana.edu/~libraries/fulltext/ ) was built with MySQL, Links, and CGI scripting. Special features of this resource are the more than 18,000 records and weekly updates for larger aggregators. The JAKE (Jointly Administered Knowledge Environment) project from Yale (http://jake.med.yale.edu/) is slightly different in scope but notable nonetheless. The architecture of the resource is PHP, Perl, MySQL, and XML. JAKE is not only a fulltext listing, but also includes 161 databases (such as ERIC, Biosis, Wilson FullText, etc.) and what they index and abstract. JAKE developers are in the process of developing a script to automatically repopulate the database from Vendor lists. In addition, JAKE includes excellent documentation, a call for other developers, and freely downloadable code and data. UNC Greensboro’s FullText Electronics Journals site (http://library.uncg.edu/ ejournals/ ) is built using active server pages (ASP) and includes a detailed subject index, browseable by academic department. 5

These database projects will most likely be an interim solution. New approaches will develop as standards for source lists from aggregators and/or product content become more stable. Furthermore, CONSER has begun initial discussions with some database vendors, such as EBSCO, to provide multiple ways for institutions to acquire bibliographic records for entire source lists that will make it easier to load content into library catalogs. 6

Since the Charleston Conference presentation, there have been some notable updates to the fulltext journal database at Virginia Commonwealth University Libraries. Aggregator titles have been added to the library catalog as discrete records indicating electronic versions. The database of aggregator titles was used to create text files that were then converted to MARC with Library of Congress’ Maremna software. 7 Catalog records for aggregator titles will be updated quarterly. Now that these records are in the catalog, new issues about maintaining two access points to this information have emerged.

As an issue of continual improvement, an analysis of how the resource is being used has begun. In a seven-day span, there were 2,915 total searches, with 2,215 being the title search (default type) and 700 were phrase searches. 1,685 of these searches came from outside the library, with 1,062 from off campus sites. 1,029 searches were performed at public workstations in one of the two VCU libraries and another 201 from library staff workstations. Preliminary analysis indicates that library staff used the resource less than was expected and off campus use was higher than expected. Further analysis of the actual searches shows a great number of errors including spelling mistakes, using truncation or wildcard symbols that are not currently supported, and using acronyms for journal names. Continued analysis may result in user-centered modifications and improvements to the resource.

Endnotes
2 For more information on UT’s project: Britten, William et al. “Access to periodicals holding information: creating links between databases and the library catalog.” Preprint from Library Collections, Acquisitions and Technical Services (http://zuma.lib.utk.edu/it2h/).
5 Dow Jones [no publicly downloadable source list, but will provide via e-mail]
6 Ethnic Newswatch [any FS database] (http://www2.oclc.org/oclc/fs/fsaltitude/).
7 For more information see Kielh and Summers. “Comprehensive Access to Periodicals: a Database Solution.” Preprint from Library Collections, Acquisitions and Technical Services (http://libstaff.lib.edu/ ~summers/periodicalsad/).
8 John Feltis presented on this topic at the LITA 1999 conference: “Creating an Interactive Web Interface for the Delivery of Database Content” (http://www.wl.illinois.edu/lita99/speakerprograms.htm).
10 VCU MarcMakr Test (http://www.library.vcu.edu/cfapps/jbc/instruct/viramark.cfm).

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