

Merging external data with serials holdings ... the next generation of serials management

“Beyond irritating, time-consuming” is the way one serials specialist described the task of managing serials collections. The fluctuation in formats, costs and availability, especially via the web, has made this management very complex. How to keep up? This article addresses the major information-intensive tasks confronting serials librarians today and uses a new Ulrich’s service to demonstrate how the merger of internal and external data is key to addressing those tasks. The article also traces the evolution of Ulrich’s from Carolyn Ulrich, the founder of the print directory in 1932, to owners R.R. Bowker and Cambridge Information Group, and the competitive factors and management decisions that occurred along the way.



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Serials librarians with responsibility for managing collections have seen an extraordinary number of changes in the way they do their jobs within the past decade. Print subscriptions, which for generations of library professionals were the only significant avenues by which serials collections were built, have gradually contributed a smaller percentage of any library’s overall serials titles. The electronic delivery of publications – first, via cd-rom, which changed things a bit, and next, via the web, which changed things a lot – has forced serials specialists to rethink several aspects of their job.

At its core, however, the responsibility of the serials librarian is much the same as it ever was: to manage the building, maintenance and availability of a library’s serials collection. Support of this responsibility has been the underlying mission of *Ulrich’s Periodicals Directory* since its inception in 1932.

The purpose of this article is to identify critical information-intensive tasks which confront all serials librarians. We will describe how *Ulrich’s*, as a major serials reference source, is being restructured to address these tasks. Using a new Ulrich’s service as a frame of reference, we will demonstrate how the merger of external data with serials holdings is key to addressing these information-intensive tasks.

Throughout this past year, Ulrich’s product management staff undertook extensive research of

the serials community. Significant differences were found in the responsibilities of serials specialists, varying by type and size of institutions. However, based on comments from a number of formal focus groups, as well as discussions with dozens of serials librarians around the world, at least four common ‘information-intensive’ management activities were identified:

Analyzing/evaluating holdings

This is an ongoing requirement, which involves:

- (1) creating and maintaining a database which requires the assignment of subject or class codes as well as other data categorization which enables the analysis of potentially thousands of serial publications.
- (2) comparing a collection against another collection (often title-by-title), or comparing each title against other quality standards, such as authoritative reviews, peer review status, ISI Impact Factor, indexing coverage and perhaps electronic availability.
- (3) understanding the economics of existing holdings, including how much is being spent on each title within each subject category.

Deselection

Given frequent budget constraints confronted by serials librarians, as well as other decisions

forced by the emergence of electronic journals, identifying candidate serials for cancellation has become a major management responsibility at many libraries. While 'deselection' may seem to be an internal process, the reality is that it is actually driven by the availability of external data. Specifically, the need to find ways to address a void by offering alternative sources of coverage is something that requires outside information.

Selection

On the other side of the coin, identifying and evaluating serials that are candidates to be added to a collection is an ongoing task for serials specialists. Generally, the selection process focuses on subject areas that have previously been identified as targets for improvement. However, the serials acquisition process has been made more complex by the availability of journals in electronic format through aggregators, subscription services, and directly from publishers. These electronic offerings come with a wide range of variables, such as publication embargos, varying years of coverage, different types of electronic format, links to index databases, etc. As with deselection, this activity is highly dependent on external data that must be acquired and integrated into the decision making process.

Communication

Finally, there is the process of letting others within the institution know which titles are available and where they can be found. On the surface this may appear to be simple. Nonetheless, communicating current serials holdings to students, faculty, department chairs, deans, accrediting bodies, grant agencies, and perhaps even prospective faculty members, requires considerable flexibility in reporting and displaying serials information. The spectrum of inquiry can range from a faculty request about the availability of an article in a particular journal in a specific format to a dean's request to receive a detailed report of the library's coverage of an area in support of curriculum or funding.

What was striking about each of these activities was the degree to which external information, data not under the control of the librarian, is critical to success. What was even more revealing was that Ulrich's database

contained much of the external data needed in these activities.

The evolution of Ulrich's

Now, take a step back in time with me to 1932 when the Great Depression was upon us and Franklin D. Roosevelt occupied the White House. At that time, the Chief of the periodicals division of the New York Public Library was a 52 year-old woman named Carolyn Ulrich. Ms. Ulrich had grown weary of the absence of a comprehensive list of available serials, so she published her inaugural *Periodicals Directory*. She wrote in the preface to the first edition of the directory, "The need for an up-to-date classified list of foreign and domestic periodicals has long been felt". That first edition consisted of 6,000 titles arranged under 183 subject holdings and sold for \$10.

For the first 60 years of its existence, *Ulrich's* was a print directory of serials titles (Ms. Ulrich passed away in 1969). As more information was required by serials specialists, more fields were added to the directory – but although the database grew significantly in size, it remained basically unchanged in concept. In fact, even when Ulrich's was published on cd-rom for the first time in 1993 by its then-owner, R.R. Bowker, the structure of the database remained the same.

In the late 1990's a decision was made that the core focus of the product would be to become a web-based reference resource that would help serials specialists keep track of their collections, identify where those titles were indexed, and obtain article level information (e.g., full text access) from as many of those titles as possible. The result was www.ulrichsweb.com which was unveiled in 1999 and now contains more than 250,000 serials (including 49,000 academic journals, 24,000 of which are refereed) from 80,000 publishers in more than 100 countries.

The next generation of serials management

In 2001, *Ulrich's* was purchased by Cambridge Information Group. The new management team was impressed by the strong brand of *Ulrich's* and its evolution over the period of seven decades, but it knew that in the world of electronic publishing the product would have to be redefined beyond that of a reference database.

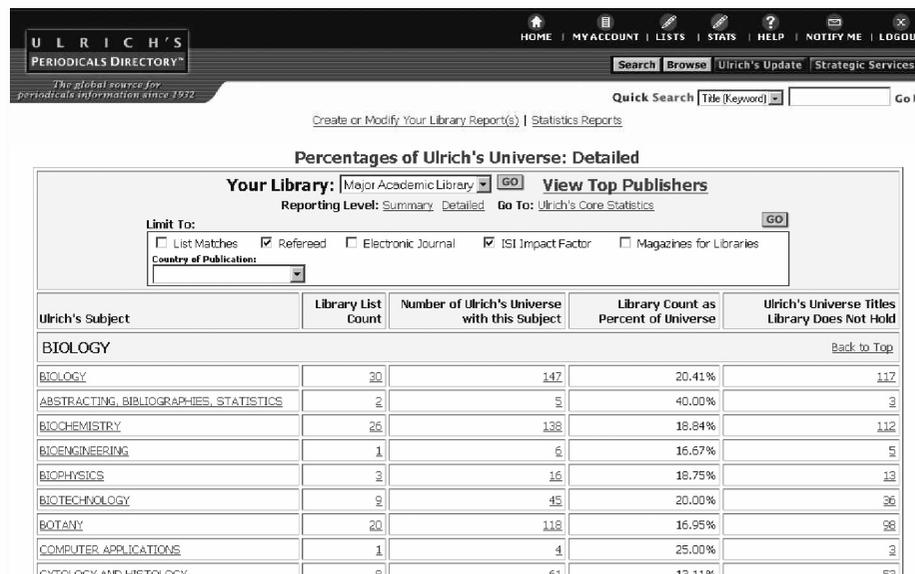


Figure 1

There were two compelling drivers behind this decision:

- (1) In an internet world, web-based reference directories can potentially fall prey to a myriad of other publishing sources that offer 'free' data, as well as encounter competition from some data service providers that are willing to offer 'loss leader' data at substantial discounts.
- (2) While *Ulrich's* database was used to addressing many serials-related issues, its reference format did not easily lend itself to help library professionals with the critical and time-consuming task of analyzing their own serials holdings.

Throughout 2002, we spoke to serials librarians around the world and determined we needed to re-engineer *Ulrich's* to help integrate our data into the serials work flow. In the parlance of a systems analyst, we had to incorporate an analytical capability into *Ulrich's* service.

The results have been the creation of *Ulrich's Serials Analysis System*; a new offering that includes the Ulrichsweb.com reference database, a library's ISSN audit report and series of analysis reporting capabilities. While Ulrichsweb.com reference database with its advanced search capabilities and links to tables of content and other journal related data is a vital component of the new system, its discussion is not within the scope of this article. Rather, the key breakthrough we are focusing on is the marriage of a library's internal information with the external information to address the activities of analysis, deselection, selection and communication.

How does it work?

The initial step is for the librarian to upload their ISSN's to Ulrichsweb.com. The system will automatically reconcile the ISSN's with the active titles in the *Ulrich's* database, highlighting those ISSN's that are incorrect, invalid or outdated and then send an ISSN reconciliation report back to the library.

Once the serials collection information is linked to Ulrichsweb.com, the serials analysis system is activated and a customized database is created and becomes immediately available. The librarian will then have web-based (password protected) access to a database containing detailed bibliographic data on each serial publication. Perhaps as important, the database will also contain bibliographic data for virtually all serials not held by the institution. A comparison of what is held versus what is not held is displayed by over 900 discreet subject headings. In one quick step, internal data is merged with external data in a standardized format permitting instant analysis. The analysis capability is made even more powerful by the ability of a user to download all the data to a spreadsheet.

When entering the system, one can choose to view their library's holdings or even the holdings of a particular publisher compared against the *Ulrich's* universe of serials holdings. The librarian can also choose to see a summary report or detailed report, and limit the analysis of holdings to such factors as: Refereed publications; Electronic Journals – only journals with an ISI Impact Factor; or only publications reviewed in

Figure 2

U L R I C H ' S
PERIODICALS DIRECTORY™
The global source for periodicals information since 1912

HOME | MY ACCOUNT | LISTS | STATS | HELP | NOTIFY ME | LOGOUT

Search | Browse | Ulrich's Update | Strategic Services

Quick Search Title (Keyword) [] Go

Create or Modify Your Library Report(s) | Statistics Reports

Percentages of Ulrich's Universe: Titles Library Does Not Hold
Major Academic Library
Subject: BIOLOGY - BIOCHEMISTRY Level: Detailed
Limit To: Refereed, ISI Impact Factor

First Page | < Previous | 1 - 50 of 112 rows | Next > | Last Page | Download

ISSN	Title	Publisher	Refereed	Electronic Journal	ISI Impact Factor	Magazines for Libraries
0001-527X	Acta Biochimica Polonica	Polskie Towarzystwo Biochemiczne	Yes		Yes	
0003-2697	Analytical Biochemistry	Academic Press, Inc.	Yes		Yes	
0003-6838	Applied Biochemistry and Microbiology	M A I K Nauka - Interperiodika * (Mezhdunarodnyi Otdel)	Yes		Yes	
0003-9851	Archives of Biochemistry and Biophysics	Academic Press, Inc.	Yes		Yes	
0006-291X	Biochemical and Biophysical Research Communications	Academic Press, Inc.	Yes		Yes	
0006-2979	Biochemistry (Moscow)	M A I K Nauka - Interperiodika * (Mezhdunarodnyi Otdel)	Yes		Yes	
0009-3084	Chemistry and Physics of Lipids	Elsevier Science Ireland Ltd	Yes		Yes	
0009-9120	Clinical Biochemistry	Elsevier Science Inc.	Yes		Yes	
0014-5793	F E B S Letters	Elsevier Science BV	Yes		Yes	

Magazines for Libraries. By way of illustration, Figure 1 provides a portion of a report which displays various subsets of an institution's biology holdings compared against the Ulrich's universe holdings. Note the Librarian has restricted this comparison to only those publications which are refereed and had an ISI Impact Factor. Should either of these selectors be changed, the system would generate different data.

Figure 2 demonstrates what happens when the user clicks on the number of biochemistry serials which the university does not hold. The display indicates those journal titles together with the publisher, all of which are refereed and have been assigned an ISI Impact Factor (if the institution subscribes to ISI, the actual factor can be displayed). A click on any journal title will take the user to the record in Ulrichsweb.com where data is available on pricing, formats, publisher and distribution information, index coverage and other details. For virtually all the 22,000-refereed journals in the system, the journal's tables of content can also be accessed.

How does the system help

Returning to our four critical tasks of analyzing, deselecting, selecting and communicating, it is relatively easy to see how the merger of internal data and external data has a very positive effect. Relative to the analysis function similar data, and in fact similar reports, are produced in many serials departments. The problem is, such activity can take several people weeks to formulate. By

contrast, the system takes minutes to generate the data and provides a common frame of reference such as subject headings for both internal and external data.

For the functions of deselection and selection, all the activities associated with the assembly of information into actionable formats, the means to identify collection gaps as well as redundancies, the comparison of journals by authoritative quality indicators, all take enormous amounts of time and effort. For each of these activities, the system is capable of doing 'the grunt work'. By structuring data to be downloaded and integrated with institutional data (such as journal price history) the system leverages past accomplishments. Yes, as always, the librarian still must do the analysis and make the tough decisions. Having an automated serials analysis capability, however, makes the process more rational, more effective, and far less time consuming.

Lastly, the system will have a major impact on how serials holdings will be compared and communicated. The system reports are clear and deceptively simple. If adds or cuts are made, the institutional position in a subject area will be easy to ascertain and communicate. By its very nature an automated system will also reduce the time to respond to inquiries. Finally, given this common frame of reference, it will be very simple to compare the holdings of one institution against another.

In brief, we have attempted to demonstrate two things. First, that integrating internal and external data is vital in serials management. Second, that

Ulrich's is moving quickly to help meet this challenging task. We intend to do everything possible to improve our Serials Analysis System and our database to assist serials librarians in analyzing holdings, rationalizing the selection/deselection process and effectively communicating with all constituencies. Carolyn Ulrich would expect no less.

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City of Westminster

Applications are invited from Subscription Service Agencies for the supply of periodicals, journals and magazines, who wish to be included in a shortlist of tenderers. Current expenditure is estimated at £40,000 over a two year period.

Companies who can provide the above service within the area served by the City of Westminster should submit an application which is to include:

1. Details of similar contracts, their type, scope and duration.
2. Details of company profile and management structure.
3. Copies of audited accounts for the last three years.
4. Details of three referees who regularly use your organisation for a similar contract.
5. Details of computerised systems.

A shortlist of companies to be invited to tender will be compiled from this information. Companies failing to provide the relevant details are likely to be excluded from the shortlist.

Completed applications should be sent to:

Westminster City Council
Westminster Accord Ltd
City Hall, 4th Floor
64 Victoria Street
London SW1E 6QP
For the attention of Maria Roberts

To be received no later than 27 June 2003