Beyond Counter: Partnering with Thomson Scientific to Develop Journal Use Reports

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Abstract

Analysing journal usage is essential to collection managers. While vendors provide usage data in standardised formats, there has, until now, been no product which provides aggregated information. Now Scholarly Stats from MPS Technologies provides aggregated data with analysis reports, and Thomson Scientific is partnering with several academic libraries to develop Journal Use Reports. The Journal Use Reports product makes use of evaluation data from the Journal Citations Reports (JCR) and citation data from Web of Science, and includes data from vendors to assist collection managers understand how journals are being used by academic staff.

The information is valuable not only from the perspective of collection management, but is also of value to research administrations as it is possible to create research profiles of academic units and link these to journal usage and citation data.

The University of Melbourne with Chicago, Drexel, Dartmouth and Michigan are development partners on the JUR product. Melbourne was also a development partner with MPS Technologies for the Scholarly Stats product. This paper will outline our experiences as development partners and the value and benefits we expect from the combined products.

Introduction

Analysing journal usage is essential for effective collection management within academic libraries. The need for an organized system to monitor, maintain, and support the analysis of usage statistics has become critical. While vendors provide usage data in standardised formats, there has, until recently, been no product which provides aggregated information. Now Scholarly Stats from MPS Technologies provides aggregated data with analysis reports, and Thomson Scientific is partnering with several academic libraries to develop Journal Use Reports (JUR). JUR makes use of evaluation data from the Journal Citation Reports (JCR) and citation data from Web of Science, and includes data from vendors to assist collection managers understand how journals are being used by academic staff.

The information is valuable not only from the perspective of collection management, but is also of value to research administrators, as it is possible to create research profiles of academic units and link these to journal usage and citation data.

The University of Melbourne, with Chicago, Drexel, Dartmouth and Michigan, are development partners on the JUR product. University of Melbourne was also a development partner with MPS Technologies for Scholarly Stats. In February 2006, MPS Technologies announced that they are partnering with Thomson Scientific to develop an automated way for their two systems to communicate.

This paper will outline our experiences as development partners and the value and benefits we expect from the combined products.

Use of metrics
Journal usage data is valuable for librarians, but gathering the data and presenting it in a useable format has, until now, been problematic. Both publishers and librarians require consistent measures to demonstrate usage. An essential prerequisite is an agreed international set of standards and protocols governing the recording and exchange of online usage data.

Collating, analysing and understanding usage statistics can support decision making in a number of ways. It is possible to assess the value of individual titles or packages with usage data as one metric. Usage data can be used in determining whether the usage made represents good value for money (Taylor-Roe 2005, p. 129-130), measure the cost effectiveness of online content purchases, and make budgeting decisions based upon real usage. It can show which disciplines are using online journals and provide evidence for the value that online access provides to users. It can also be used to assess usage trends over particular months, semesters, or years. (Conyers 2006)

COUNTER

In 2002 COUNTER (Counting Online Usage of Networked Electronic Resources <http://www.projectcounter.org/> ) was launched. The COUNTER initiative is an international co-operative project involving vendors, industry organisations and libraries. The project looked at the range of publisher usage statistics available and introduced a commonly accepted set of standard definitions, data processing rules and formats to supply librarians with reports containing statistics which are comparable across publisher platforms and over time (Conyers 2006). "We always notice a significant improvement in the quality of reporting when a publisher becomes COUNTER compliant." (Taylor-Roe 2005, p.130)

In the latest list of COUNTER-compliant vendors (dated October 2006) 52 publishers and intermediaries are listed as COUNTER compliant in respect of the most common report format.

Independent auditing of vendor COUNTER usage reports will be required from 2007 onwards. All vendors compliant with a given Code of Practice must have their reports audited within 18 months of their date of compliance (Project COUNTER 2006b). COUNTER continues to develop as needs arise for more sophisticated analysis. Davis’s research indicates that usage statistics are influenced by publisher platform (Davis 2006).

COUNTER limitations

COUNTER-compliant usage statistics are provided from the publishers’ websites, but need to be collected individually from those websites, each with its own URL, username and password – a time-consuming process. This means that the administrative costs of individual provider-by-provider downloads is high. It is up to the library staff member to consolidate reports. "COUNTER-compliant usage statistics are necessary but not sufficient." (Robinson 2006) Enter Scholarly Stats.

ScholarlyStats <https://www.scholarlystats.com/>

ScholarlyStats is a management portal which provides a single point of access for an institution’s vendor usage statistics. It collects, standardises and consolidates journal usage data to provide the library administrator with a suite of monthly usage reports.
through a user-friendly interface. This product eliminates much of the labour intensive activities involved in collecting and consolidating data from a variety of vendors.

MPS Technologies developed ScholarlyStats with the assistance of over 50 participating libraries during the 2005 beta phase. The University of Melbourne was one of the beta testers. The ScholarlyStats service was launched in early 2006, using COUNTER compliant usage statistics from participating publishers. As of October 2006, there are 39 participating platforms covering over 450 databases, over 70,000 journals, and over 13,500 publishers (ScholarlyStats 2006).

Subscribing to ScholarlyStats enables librarians to outsource the collection and consolidation of their usage statistics to MPS; freeing up their time to spend analysing and understanding their data, and less time administering those statistics. Martha Sedgwick, ScholarlyStats Project Manager, says

Librarians around the world have told us about the problems and frustrations involved with the collection and consolidation of their usage statistics. Currently, many librarians collect, reformat and merge individual statistics reports every month from a large number of publishers and vendors. Collection and consolidation of these reports wastes large amounts of time and can be very frustrating. (Sedgwick 2005)

ScholarlyStats has an extensive online help facility which includes suggestions from the user community on use of the reports. MPS staff are very responsive to feedback from customers, continuing to refine and improve on an already excellent service. For example, in May 2006 MPS developed some new functionality in response to customer feedback. New Dashboard Reports include top 50 journals across platforms, summarizing a library's top 50 most used journals across all platforms based on the total use for the year to date, and Low Use Journals (excluding zeros) which details those journals with 10 full-text article requests and fewer for the current year. This report provides the opportunity to review low use titles. In December 2006, MPS Technologies won the Best Library Product of 2006 at the International Information Industries award.

Thomson Scientific has partnered with MPS Technologies to transfer usage data from ScholarlyStats into Journal Use Reports. The University of Melbourne, as a development partner for JUR and subscriber to ScholarlyStats, was able to provide the test data from 21 vendors. The automated harvesting of usage statistics is based on the developing SUSHI standard. SUSHI (Scholarly Usage Statistics Harvesting Initiative) is a NISO (National Information Standards Organization) led protocol for the automatic delivery of usage data from one system to another through an xml schema. SUSHI is establishing usage reporting standards that will allow institutions to obtain usage data systematically. The initiative came in response to the growing demand for more in-depth usage analysis as well as the continuing need to ease the time consuming process of managing vendor usage statistics. As Reynold Guida, Director of Product Development at Thomson Scientific, observes,

Thomson Scientific and MPS Technologies have had similar goals, trying to ease the pain points in bringing usage data to the libraries. Using the SUSHI protocol to help integrate these two data sets seemed the logical next step. (Guida 2006)
ScholarlyStats is now able to transfer journal usage data into other systems, including the Electronic Resource Management modules of integrated library systems such as those of Ex Libris and Innovative Interfaces Inc. Project COUNTER is also collaborating in the initiative. Adam Chandler of Cornell University states, Librarians want to make use of their COUNTER reports, but the process of collecting the reports from all the different Web sites is very, very time consuming. The protocol we are developing will allow ERMS and other vendors to retrieve and import reports from compliant content providers into local systems automatically. That will free us to spend our energy analyzing the data. (Chandler 2006)

**Journal Use Reports (JUR)**

Launched in the (northern) Spring of 2006, Journal Use Reports is an analytical resource created to help collection management librarians and administrators evaluate their collections by understanding journal performance and use, and link the data with research activity at their institutions. Using JUR, librarians and administrators can discover in which journals the University’s researchers are publishing, and which journals they are reading and citing, as well as finding out whether the library’s holdings meet their needs. (Thomson Scientific 2006a) Capturing different types of use data into a single interface provides a systematic quantitative approach to gather and review statistics (Sears 2006a). In a single reporting interface, JUR combines journal citation metrics from Journal Citation Reports (JCR), institutional publication activity data and article level data from Web of Science with a library’s journal holdings data and journal use data in COUNTER compliant format. (Thomson Scientific 2006a). One can also view information at the individual journal level. (Sears 2006) This information helps researchers and universities demonstrate the impact and prominence of their research. Journal Use Reports paints a helpful picture of the university’s research output by evaluating the journals in which the researchers are publishing. (Thomson Scientific 2006a). As Penny notes,

Tools like this put the power back into librarians’ hands, and allow them to make decisions based on usage rather than the perceived value of articles by what may be an unrepresentative but vocal minority of researchers. (Penny 2006)

John James, associate librarian at Dartmouth College, comments that Journal Use Reports can provide data on collection gaps, and that data can be used to strengthen journal collections in the identified disciplines.

Journal Use Reports will help us ‘trim’ titles that are not being used by our researchers and are not highly influential [as evaluated by their Journal Citation Reports ratings]. It will also help us identify journals to which we should be subscribing but currently are not. (James 2006)

Noelle Egan praises Journal Use Reports for its ability to drill down into data and organise it by subject category, opening up countless possibilities for analysing an institution’s holdings.

Let’s say the university opens a new master’s program for a certain department. Journal Use Reports tells us which journals in that subject area we already subscribe to, how often they are being used, and what we need to do to develop our collections from there. (Egan 2006)
As with research institutions of all sizes across the globe, evaluating its libraries' holdings has been a constant challenge for information professionals at the University of Chicago. Jim Mouw, Assistant Director for Technical and Electronic Services at the University of Chicago, states

In the past, evaluating our holdings has been a very cumbersome process. Journal Use Reports unifies all of our previous evaluation methods...Essentially, Journal Use Reports creates a matrix of information — qualitative and quantitative — that our university can use to truly evaluate our holdings. ...Evaluating holdings becomes more relevant and applicable when the evaluator can see who is citing the journals and not just how often they are being cited. Journal Use Reports automatically generates these hard-to-come-by statistics. (Mouw 2006)

Mark Sandler, from University of Michigan, notes that improved analysis capability may mean a new standard and process for his library's collections development decisions.

Journal Use Reports takes us beyond the notion of raw, undifferentiated hits, and allows us to see the value of the research program of our faculty and students... This qualitative assessment tool will bring about a world of difference. It takes us to a whole new level of ability to analyze our collections. (Sandler 2006)

One of the key features of the Journal Use Reports is its publication activity function. Creating Publication Activity Profiles for a research grouping provides a mechanism to retrieve information, including citation rates, on journals that published articles by researchers at an institution. (Thomson Scientific 2006). As Sandler comments,

What Journal Use Reports tells is how important a journal is among the research peers working in that area — not just to an audience of undergraduates or the general public. It also tells us who from our faculty is using the journal, and who from our faculty is publishing in the journal. ...A specialized journal may only receive a handful of hits, but if all those hits reflect local scholarship and publishing, it needs to be evaluated under a different set of standards. Those are 'quality' hits, and that journal is a keeper. (Sandler 2006)

Creating Publication Activity Profiles allows retrieval of information, including citation rates, on journals that published articles by researchers at an institution. The site administrator of the product may choose to create a single, site-wide profile for all publication activity at the institution and/or establish profiles based on schools or departments at the institution (Sears 2006). The designated profile manager can select an unlimited number of addresses for storing in institutional profiles. During processing, data is collected when the profile is searched against the 3-year Web of Science and Journal Citation Reports data set. The compiled data are analysed and the data become available for viewing. (Thomson Scientific 2006b) The ability to create profiles for comparative analysis with peer institutions is possible, enabling libraries to identify strengths, weaknesses, and special needs of their users. (Sears 2006)

Setting up JUR
In order to get the maximum functionality from Journal Use Reports, it is necessary to upload library holdings file(s) and vendor usage reports, and then create publication activity profiles. (Thomson Scientific 2006b) Once these activities have been undertaken, users can take advantage of all the features Journal Use Reports has to offer. The features include the Journal Summary Table, which shows the list of articles over a 3-year data period associated with a Publication Activity Profile. From this page, users can link to Journal Full Record and Article Summary pages. The Full Journal Record displays data about the journal and may include citation information collected from Journal Citation Reports, the number of articles from the journal published by researchers at the institution, and vendor usage data that the institution has uploaded. The Article Summary displays a list of articles published by researchers within the profile. On display are the journal name, publisher name, ISSN, and the total number of articles published in the journal by researchers within the profile. If there is an institutional subscription to Web of Science, clicking on the article title will link to the Web of Science Full Record page. The Cited Journals Citing Year Table shows how many times each journal in the Publication Activity Profile was cited and the distribution of those citations according to the publication year of the profile articles. The Cited Journals Cited Year Table shows how many Publication Activity Profile articles cited each journal and the distribution of those articles according to the publication year of the cited journal. (Thomson Scientific 2006b)

Nuts and bolts

Journal Use Reports comprises two administrative modes: Journal Use Reports (JUR) and the Journal Upload Utility (JUU). The JUR and JUU (Journal Upload Utility) interfaces are accessed by the site administrator via the Web of Knowledge gateway by logging in with a username and password. Like the other Web of Knowledge products, this interface is uncluttered and generally easy to navigate. (Sears 2006)

The JUU is the tool used to upload the journal holdings file that has been extracted from a library catalogue or other journal list, e.g., Ex Libris' SFX. It is also the tool used to upload COUNTER-compliant use data from journal publishers or from ScholarlyStats. Local use data can be loaded at any time and includes the option to load either monthly or annual (calendar year-to-date) statistics. (Sears 2006). Thomson Scientific also offers the option to load ongoing COUNTER-compliant use data for its library customers for an additional service fee. This service is called the Journal Usage Upload Service (JUUS). Libraries that participate in this option will need to supply passwords to Thomson Scientific to access other vendors’ statistical reporting systems on their behalf. (Sears 2006)

The site administrator can create new profiles, edit existing profiles, and delete unnecessary ones. Some profiles can remain active in the JUR interface, and reports can be exported. These profiles are created and modified within the publication activity section of JUR. The search box is flexible enough to search a variety of components of the publication activity fields, e.g., university name, department affiliation, or postcode, and it also allows for truncation and simple Boolean searches. Depending on the number and detail of the profiles, administrators may find this to be a cumbersome process, but creating a single, site-wide profile is relatively easy. (Sears 2006)

Thomson Scientific indicates that there are currently limits to the number of profiles that can remain active at any one time; however, it is possible to work within these
constraints by exporting the data as reports are run. The export tool is similar to other Web of Knowledge products and is straightforward and simple to use. Because there are likely to be several people at an institution who want to make use of JUR reports, the export feature allows for a convenient way to disseminate the information to other staff. (Sears 2006)

**Development partners**

Thomson Scientific has been very receptive to the development partners' feedback and needs, and in the end, we have a very useful, very rich product. (Thomson Scientific 2006c). The University of Melbourne worked closely with Thomson Scientific and four universities from the United States as development partners in the creation of *Journal Use Reports*, testing and providing feedback at every stage to assist Thomson Scientific develop and refine *Journal Use Reports*. “Like any brainstorming, the coming together of the different perspectives involved in *Journal Use Reports*’ development has led to a better end result,” said Sabina Robertson, Manager, Student Information Support Services.

What I found particularly interesting is how all of the development partners faced similar issues in their evaluations — what might be important to one institution halfway around the world, is important to the University of Chicago…This really reaffirmed that Thomson is working toward addressing the right issues. (Mouw 2006)

Mouw credits the Thomson Scientific team for its responsiveness to the needs of librarians. “The Thomson Scientific team is wonderful to work with. They are knowledgeable, and professional, and have a good understanding of our issues. The team also has the ability to think beyond an easy solution and apply a better one, even if it’s a harder thing to do.” (Mouw 2006)

Sandler praises the Thomson Scientific team for their responsiveness to the requests of the development partners.

The collaborative process has been great, and I give Thomson Scientific development team a lot of credit. They’ve been ‘perfect-pitch’ in dealing with librarians. They’ve truly understood the ‘library mission.’ And, Thomson Scientific is the first to get this concept off the ground; they deserve a lot of credit for that. (Sandler 2006)

**Impact factors discussion**

The use of journal impact factors as a measure of the importance of research is a vexed question. Citations are a by-product of the research process, not its goal, and ‘research impact’ is a complex notion. Citation rates vary by discipline and sub-discipline. It has proved very difficult to develop citation indices with adequate coverage of the arts, humanities, and social sciences. These limitations become acute in comparisons between disciplines or between countries or regions (Rowlands 2006). Some communities have a tendency to cite more heavily than others. It is very hard to control adequately for this effect because it is impossible to be sure that the boundaries of a field are drawn in such a way that citation behaviour is the same throughout that field. Nevertheless, Thomson Scientific’s journal impact factors, based on citation data, have become generally accepted as a valid measure of the quality of scholarly journals, and are widely used by publishers, authors, funding agencies and librarians as measures of journal quality. (Project COUNTER 2006b) The number of citations a paper receives is often used as a measure of its impact
and, by extension, of its quality. The use of citations as a proxy for impact or quality has been extended from articles to journals with the Impact Factor. A journal’s Impact Factor is a measure of the frequency with which the "average article" in a journal has been cited in a particular period. (Mark Ware 2006)

Despite a number of weaknesses associated with the technique, general opinion is that high citation counts are associated with high quality and/or high impact of research output. Experience has shown that in each specialty the best journals are those in which it is most difficult to have an article accepted, and these are the journals that have a high impact factor. The use of impact factor as a measure of quality is widespread because it fits well with opinion in each field of the best journals in each specialty. (Quimette 2006) Eugene Garfield (1998), the original creator of this metric, indicates that "citation data and analysis should always be used in combination with other indicators when evaluating departments or individuals." (Quimette 2006)

Even though a journal may have a high impact factor, it may not be valued by academics at the institution; however, JUR provides the opportunity to develop research profiles which allows the librarian and researcher to evaluate collections against impact factor, use and citation analysis. (Miller 2006) The availability of the majority of significant scholarly journals online, combined with COUNTER-compliant online usage statistics, raises the possibility of a parallel usage-based measure of journal performance becoming a viable additional metric. (Project COUNTER 2006b)

**Research Quality Framework**

Measurement of research excellence and quality is an issue which has increasingly interested governments, universities and funding bodies as measures of accountability and quality are sought. (Steele 2006) The Australian Government has developed a Research Quality Framework (RQF), to be introduced in 2008, to ensure that resources provided to support research are directed to areas of research excellence that generate wider benefit and impact for society. For the purposes of the RQF, research impact relates to the social, economic, environmental and/or cultural benefits of research produced by Australia’s universities that extend beyond academia into the wider community, regionally, nationally and/or internationally. (Swinburne 2006) Research impact should include all the measurable effects of research: whether it is read, cited, used in other research, practically applied, patented, or whether it helps its authors to garner prizes and awards. (Oumiette 2006)

To allow international benchmarking of RQF results, a profile of ratings of outputs for an aggregated discipline area within each institution will also be reported. It is important, therefore, to better identify the ‘groupings’ of researchers (staff and students) within the University and their major shared research interests. Some of the supplementary factual information required in the RQF exercise includes quantitative information, such as the number of people in a research grouping; the total number of outputs produced by the research grouping over the assessment period; the number of research only staff, early-career researchers and higher degree by research students; Thomson Scientific citations and related bibliometrics where relevant; and esteem indicators such as the number of Fellows of learned academies. (Australia. Expert Advisory Group for the RQF 2006)

**Conclusion**
Universities and university libraries need to demonstrate research and citation impact. ScholarlyStats and *Journal Use Reports*, emanating from different vendors, are complementary offerings. The integration of these two systems offers the benefits of the ScholarlyStats dashboard reports, linked to the impact factor and publication information from *Journal Use Reports*. While citation data and usage data alone are not the only measures of a collection’s importance, there is now much more data available to inform collection management decision making and support the requirements for Research Quality Framework reporting.

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