

Practitioner Responses on the Collection and Use of Usage Statistics

Abstract

In addition to the theoretical implications of use and usage, there are practical implications for librarians who interact with use and usage statistics on a daily basis.

Usage Statistics Survey

The results of an informal survey distributed May 4, 2010, to the Electronic Resources in Libraries (ERIL) e-mail list offer a glimpse into how usage statistics are actually being collected and used in libraries. At the time of distribution, there were 1,938 subscribers to ERIL-L and 112 individuals responded to the survey (see appendix). When asked how often (if at all) vendor-provided usage statistics for electronic resources are collected, 45 respondents stated annually; 16, every six months or twice a year; 51, monthly; and 11, quarterly or every three to four months (figure 16). However, these numbers are not as clear-cut as one might assume from first glance. Some respondents noted different time frames for different scenarios; thus, some responses were counted twice. For example, one respondent indicated that database statistics are collected once a year and e-journal statistics are collected twice a year. Moreover, even for those libraries that report collecting statistics on a monthly basis, it still depends on the publisher's or vendor's release schedule. For example, some publishers and vendors release statistics only on a quarterly basis, so monthly collection is not possible.

More than half of the responses included a caveat or further explanation of some sort; caveats ranged from "monthly, but as needed for special reports" to "once a year for annual reports but also at time of renewal for

How often (if at all) do you collect vendor-provided usage statistics for electronic resources?

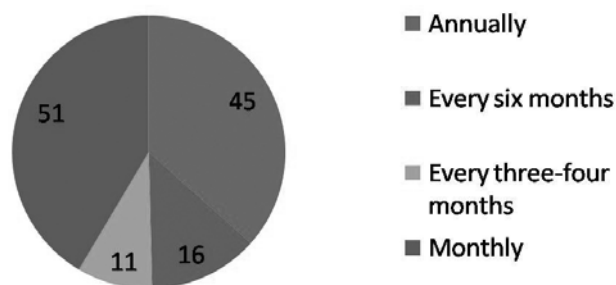


Figure 16
Results of question 1 (see appendix) of the survey.

individual digital resources if under consideration for cancellation" to "usually twice a year, unless a faculty member needs usage stats ASAP." Other responses were not time-frame specific but rather stated "ongoing throughout the year" or the simple yet honest "not very often" or "I try for once a month. It rarely happens."

It is tempting to believe that the 51 respondents who collect statistics monthly outsource at least some of the responsibility through the use of services such as Serials Solutions 360 Counter (figures 17–20) or Scholarly Stats (figures 21–24). However, 32 of the 51 respondents who collect monthly are doing so manually, without the assistance of a third party or without the use of the SUSHI protocol. Of the entire 112 respondents, 41 did indicate that they were investigating, using, or had discontinued a vendor-supplied service. Two respondents quoted budgetary

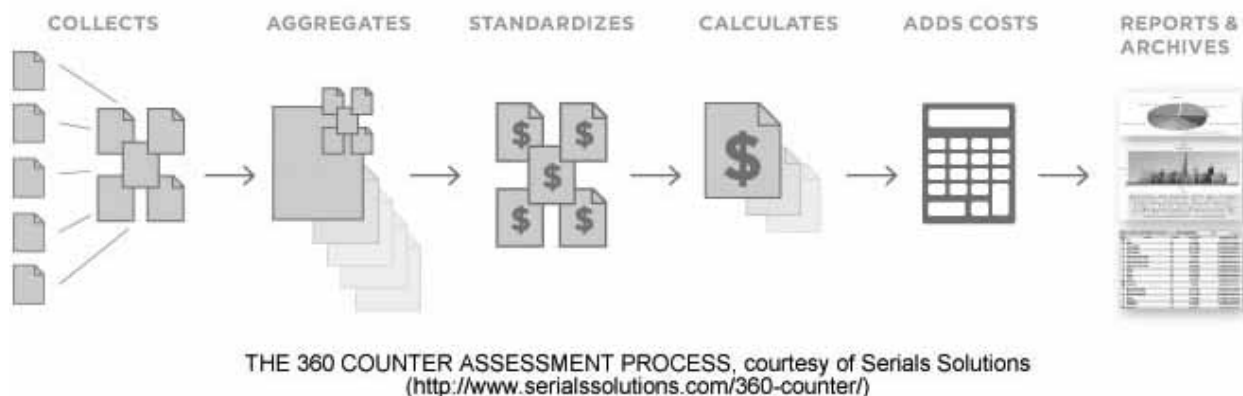


Figure 17
Serials Solutions explains its process for 360 COUNTER.

Reports > 360 Counter Consolidated Reports >
Authority Titles by Subject (JR1) [[Link to this Report](#)]
 Data Last Updated 05/13/2009 12:26:40

Header Metric View Export PDF Export Save as ... Help

Applied Filters: [Subject: Sciences - General] [Month: Jan 2007 to Mar 2009] [LibranCode: DCS]

					2007		2008		Grand total:	
Subject	Authority Title	Journal Name	Provider/Platform	Publisher	Cost per Use	Uses	Cost per Use	Uses	Cost per Use	Uses
Sciences - General	Ambio	Ambio	JSTOR	Alliance Communications Group	-	-	0.01	271	0.01	271
		AMBIO: A Journal of the Human Environment	BioOne	Royal Swedish Academy of Sciences	-	-	-	72	-	72
	American journal of science (1880)	American Journal of Science	HighWire Press	American Journal of Science	-	-	0.04	36	0.04	36
	Annals of the New York Academy of Sciences	Annals of the New York Academy of Sciences	Blackwell Publishing	Blackwell Publishing	0.04	193	0.05	127	0.04	320
	Biographical	Biographical	ISTOR	The Royal						

Figure 18
Formatting of headers and footers within 360 COUNTER. Courtesy of Serials Solutions.

constraints. One commented that statistics were collected “manually, but only because we do not have the budget to outsource.” The second explained: “The quoted cost of Serials Solutions and Scholarly Stats was too high for us,” and went on to qualify, “Also, these products can’t be used for non-COUNTER-compliant stats.”

Not all statistics are treated the same or necessarily collected on the same schedule. One respondent explained: “I try to do monthly reports on some things, calendar year on others, and fiscal year on others. It really depends on the resource as some I need to keep closer track of than others.” For libraries that outsource their

statistics-gathering duties, time frames may vary as well. One respondent noted that statistics are collected “annually, except for the automated stats from Scholarly Stats we collect monthly. For about 40 vendors, we outsource collection to Scholarly Stats and automatically via SUSHI upload the stats into our III ERM system. For other vendors, we manually collect stats” on an annual basis. Another respondent noted that statistics were collected “all the time, but we’re aiming for twice a year. Serials Solutions collects most JR1s for us.”

For the already overtaxed librarian, the perceived time needed to implement protocols such as SUSHI plays

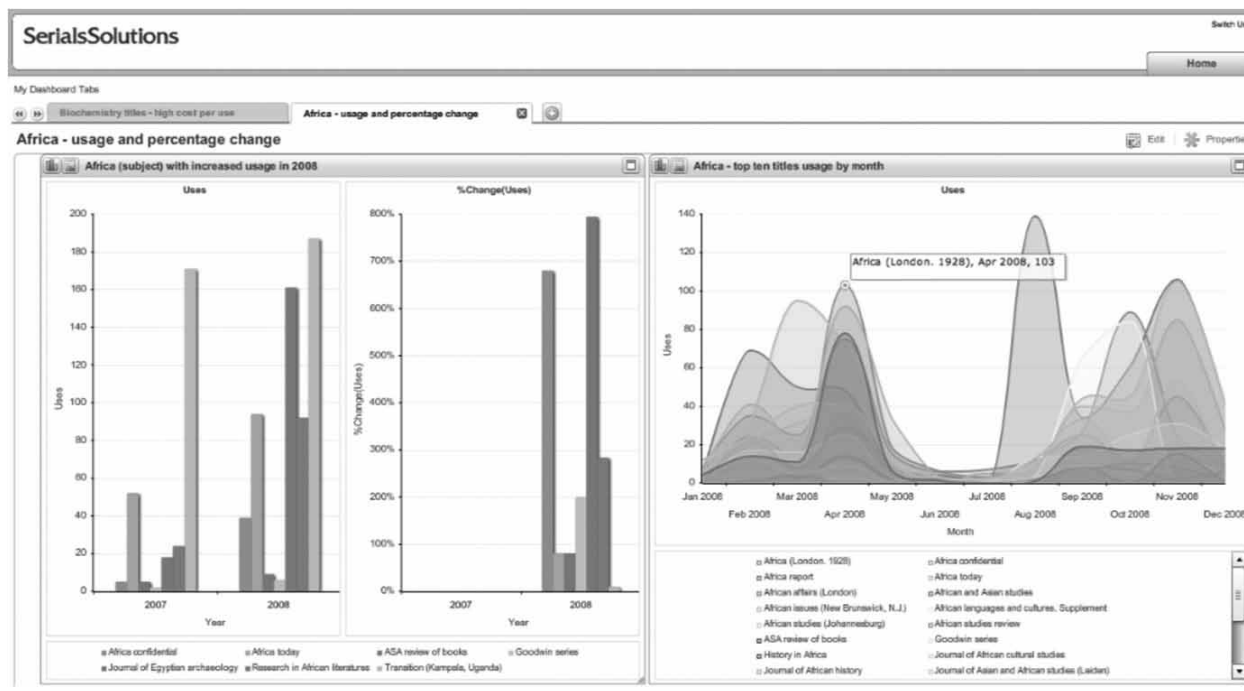


Figure 19
The chart on the left is a graphical representation of titles that received a large percent increase in their usage over the course of a given time period. The one on the right illustrates the fluctuation in uses of titles over a span of months. Courtesy of 360 COUNTER, Serials Solutions.

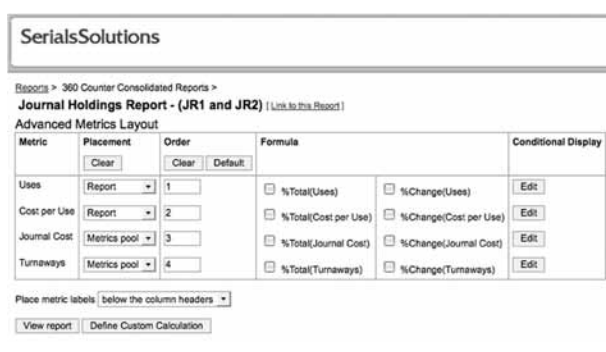


Figure 20
The advanced metric option in 360 COUNTER gives you the ability to calculate your percent change for the cost and use of a report. Courtesy of Serials Solutions.

a large role as well, even with the use of a third-party service: “We have Scholarly Stats for our nine largest platforms. . . . I have been wanting to implement SUSHI, but just haven’t had the time.” Other comments included “I have plans to try to implement SUSHI” and “I’d love to have them [vendor platforms] harvested using SUSHI but who has the time to get IT to do that?” The value of SUSHI may be widely heralded, but its limited use by the vendor and publisher community has certainly not gone unnoticed—“We are attempting to use SUSHI when it works, and are looking forward to its wider adoption. Other than that, it [statistic collection] is manual.” Librarians are excited and anxious for the different systems and

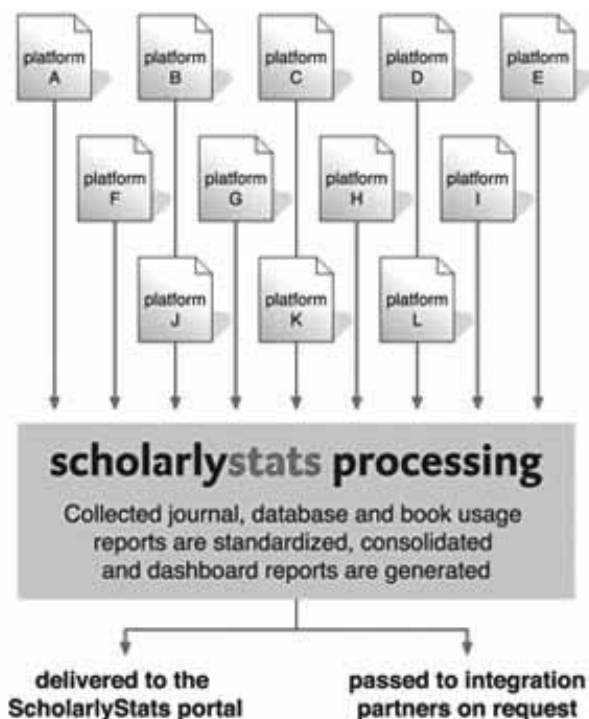


Figure 21
Scholarly Stats offers a graphic explaining its overall process. Courtesy of Scholarly Stats, a service of Swets.

protocols to work and work well *together*. At present, however, even for the most aggressive of implementers,

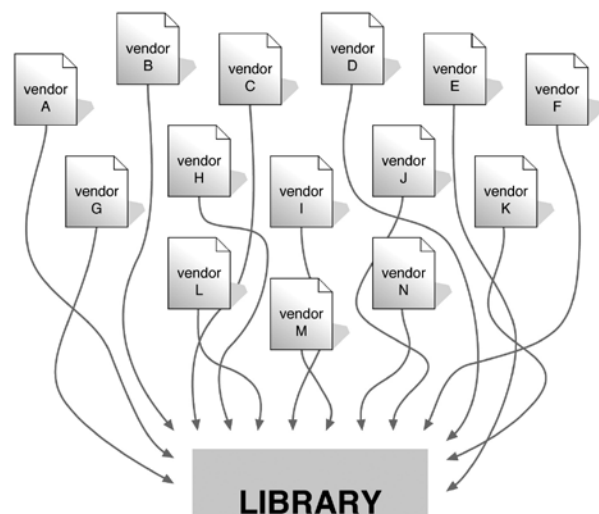


Figure 22
Scholarly Stats offers another graphic explaining more about its process. Courtesy of Scholarly Stats, a service of Swets.



Figure 23
An example of reports available within the Scholarly Stats interface. Courtesy of Scholarly Stats, a service of Swets.

Journal Title	Platform	Collection	Request	Journal Title	Platform	Collection	Request
Journal Title 1	Platform 1	Collection 1	Request 1	Journal Title 2	Platform 2	Collection 2	Request 2
Journal Title 3	Platform 3	Collection 3	Request 3	Journal Title 4	Platform 4	Collection 4	Request 4
Journal Title 5	Platform 5	Collection 5	Request 5	Journal Title 6	Platform 6	Collection 6	Request 6
Journal Title 7	Platform 7	Collection 7	Request 7	Journal Title 8	Platform 8	Collection 8	Request 8
Journal Title 9	Platform 9	Collection 9	Request 9	Journal Title 10	Platform 10	Collection 10	Request 10
Journal Title 11	Platform 11	Collection 11	Request 11	Journal Title 12	Platform 12	Collection 12	Request 12
Journal Title 13	Platform 13	Collection 13	Request 13	Journal Title 14	Platform 14	Collection 14	Request 14
Journal Title 15	Platform 15	Collection 15	Request 15	Journal Title 16	Platform 16	Collection 16	Request 16
Journal Title 17	Platform 17	Collection 17	Request 17	Journal Title 18	Platform 18	Collection 18	Request 18
Journal Title 19	Platform 19	Collection 19	Request 19	Journal Title 20	Platform 20	Collection 20	Request 20
Journal Title 21	Platform 21	Collection 21	Request 21	Journal Title 22	Platform 22	Collection 22	Request 22
Journal Title 23	Platform 23	Collection 23	Request 23	Journal Title 24	Platform 24	Collection 24	Request 24
Journal Title 25	Platform 25	Collection 25	Request 25	Journal Title 26	Platform 26	Collection 26	Request 26
Journal Title 27	Platform 27	Collection 27	Request 27	Journal Title 28	Platform 28	Collection 28	Request 28
Journal Title 29	Platform 29	Collection 29	Request 29	Journal Title 30	Platform 30	Collection 30	Request 30
Journal Title 31	Platform 31	Collection 31	Request 31	Journal Title 32	Platform 32	Collection 32	Request 32
Journal Title 33	Platform 33	Collection 33	Request 33	Journal Title 34	Platform 34	Collection 34	Request 34
Journal Title 35	Platform 35	Collection 35	Request 35	Journal Title 36	Platform 36	Collection 36	Request 36
Journal Title 37	Platform 37	Collection 37	Request 37	Journal Title 38	Platform 38	Collection 38	Request 38
Journal Title 39	Platform 39	Collection 39	Request 39	Journal Title 40	Platform 40	Collection 40	Request 40
Journal Title 41	Platform 41	Collection 41	Request 41	Journal Title 42	Platform 42	Collection 42	Request 42
Journal Title 43	Platform 43	Collection 43	Request 43	Journal Title 44	Platform 44	Collection 44	Request 44
Journal Title 45	Platform 45	Collection 45	Request 45	Journal Title 46	Platform 46	Collection 46	Request 46
Journal Title 47	Platform 47	Collection 47	Request 47	Journal Title 48	Platform 48	Collection 48	Request 48
Journal Title 49	Platform 49	Collection 49	Request 49	Journal Title 50	Platform 50	Collection 50	Request 50
Journal Title 51	Platform 51	Collection 51	Request 51	Journal Title 52	Platform 52	Collection 52	Request 52
Journal Title 53	Platform 53	Collection 53	Request 53	Journal Title 54	Platform 54	Collection 54	Request 54
Journal Title 55	Platform 55	Collection 55	Request 55	Journal Title 56	Platform 56	Collection 56	Request 56
Journal Title 57	Platform 57	Collection 57	Request 57	Journal Title 58	Platform 58	Collection 58	Request 58
Journal Title 59	Platform 59	Collection 59	Request 59	Journal Title 60	Platform 60	Collection 60	Request 60
Journal Title 61	Platform 61	Collection 61	Request 61	Journal Title 62	Platform 62	Collection 62	Request 62
Journal Title 63	Platform 63	Collection 63	Request 63	Journal Title 64	Platform 64	Collection 64	Request 64
Journal Title 65	Platform 65	Collection 65	Request 65	Journal Title 66	Platform 66	Collection 66	Request 66
Journal Title 67	Platform 67	Collection 67	Request 67	Journal Title 68	Platform 68	Collection 68	Request 68
Journal Title 69	Platform 69	Collection 69	Request 69	Journal Title 70	Platform 70	Collection 70	Request 70
Journal Title 71	Platform 71	Collection 71	Request 71	Journal Title 72	Platform 72	Collection 72	Request 72
Journal Title 73	Platform 73	Collection 73	Request 73	Journal Title 74	Platform 74	Collection 74	Request 74
Journal Title 75	Platform 75	Collection 75	Request 75	Journal Title 76	Platform 76	Collection 76	Request 76
Journal Title 77	Platform 77	Collection 77	Request 77	Journal Title 78	Platform 78	Collection 78	Request 78
Journal Title 79	Platform 79	Collection 79	Request 79	Journal Title 80	Platform 80	Collection 80	Request 80
Journal Title 81	Platform 81	Collection 81	Request 81	Journal Title 82	Platform 82	Collection 82	Request 82
Journal Title 83	Platform 83	Collection 83	Request 83	Journal Title 84	Platform 84	Collection 84	Request 84
Journal Title 85	Platform 85	Collection 85	Request 85	Journal Title 86	Platform 86	Collection 86	Request 86
Journal Title 87	Platform 87	Collection 87	Request 87	Journal Title 88	Platform 88	Collection 88	Request 88
Journal Title 89	Platform 89	Collection 89	Request 89	Journal Title 90	Platform 90	Collection 90	Request 90
Journal Title 91	Platform 91	Collection 91	Request 91	Journal Title 92	Platform 92	Collection 92	Request 92
Journal Title 93	Platform 93	Collection 93	Request 93	Journal Title 94	Platform 94	Collection 94	Request 94
Journal Title 95	Platform 95	Collection 95	Request 95	Journal Title 96	Platform 96	Collection 96	Request 96
Journal Title 97	Platform 97	Collection 97	Request 97	Journal Title 98	Platform 98	Collection 98	Request 98
Journal Title 99	Platform 99	Collection 99	Request 99	Journal Title 100	Platform 100	Collection 100	Request 100

Figure 24
An example of a COUNTER-compliant report available within the Scholarly Stats interface. Courtesy of Scholarly Stats, a service of Swets.

an uneasy mixture of approaches remains: “We are experimenting with SUSHI now, and hope to employ our ERM stat module (Verde) along with SUSHI for something that would be more robust in the future, but right now everything is pretty piecemeal.”

Lest we think that third-party services are the silver bullet, it is important to note that the disadvantages of third-party services emerged as well: “We use Scholarly Stats (Swets) service; however, the downside to that is that stats are approximately two months behind, i.e., vendors do not have to provide COUNTER-compliant stats for 20 days after months end, and therefore Scholarly Stats does not collect until 20 days after that time! So, although their reporting is interesting, particularly for title level stats we can’t compile ourselves, we still collect platform manually so that the subject librarians have some sort of up-to-date feedback each month.” Another respondent explained: “Right now, we’re manually collecting stats. We used to use Scholarly Stats pre-recession. We’ve found that once we set up our admin accounts, it doesn’t take an undue amount of staff time to retrieve them.” Clearly, the local library structure and collection size may dictate the cessation of a third-party service or a mixture of third-party and manual collection.

When asked what mechanism is used to collate statistics (e.g., Microsoft Excel, ERM, other), all but nine respondents used Excel either exclusively or in concert with an ERM, XML, SharePoint, Microsoft Access, or other locally developed solution. Of the nine that did not use Excel, Serials Solutions 360 Counter, ERM, and Access and ASP programming were among the tools used to collect and collate the statistics. Clearly, Excel is still at the forefront in terms of statistic collection and collation.

The distribution of usage statistics to internal library personnel occurs in a number of different ways, but e-mail and intranets, protected webpages or shared drives primarily dominate the distribution channels. When asked how distribution occurs, 43 respondents indicated an intranet, protected webpage, or shared drive, and 38 respondents indicated e-mail; 25 respondents explained that they did some combination of sharing via a centralized location (not an ERM or third-party provider) and e-mail upon request. Only three respondents specifically stated that they give librarians access to their ERM or third-party provider.

To determine how collected usage statistics are used, respondents were asked to check all that applied: collection development/management; promotion/public relations, assessment/evaluation; reporting to accrediting or other agency (e.g., ARL); training library staff; and other (figure 25). The clear leaders in this category were collection development/management with 94.6% (106) and assessment/evaluation with 92% (103). Less popular were reporting to accrediting or other agency (e.g., ARL) with 50.9% (57) and promotion/public relations with 42.2%

How does your institution utilize the electronic resource usage statistics it collects? (Check all that apply)

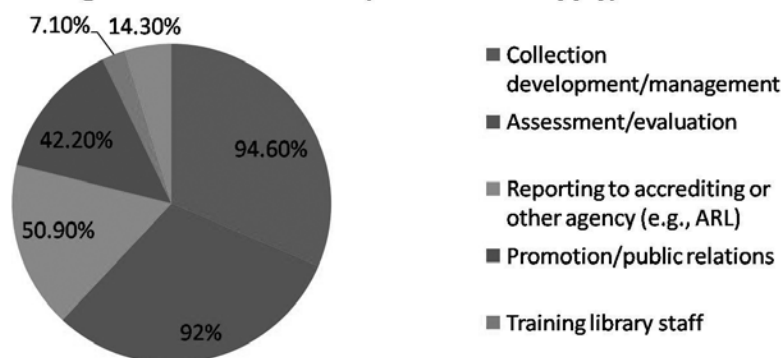


Figure 25
Results of question 7 of the survey.

(45). Training library staff trailed last with 7.1% (8). The other category, at 14.3% (16) included responses such as these:

- “The data is collected for the purposes above, but frankly it is seldom used.”
- “We use stats to demonstrate the library’s return on investment by the University. Lately we have had to demonstrate to specific departments the support they get from the library.”

Of special note is one response: “I have used them to claim access/credit on rare occasions. If you can show lots of zeros and then several months of consistent use, then it is pretty easy to convince the publisher that there was no access initially.” It would be interesting to discover how successful this tactic is.

It is evident from the “other” category that usage statistics are used in budgeting decisions. Ten of the 16 responses cited budget or budget justification as a common use of the usage statistics. One respondent noted, “For our 2010 renewals, we did not renew anything with a cost per download of over \$35.” Budgeting might also have been interpreted as being part of collection development/management or assessment/evaluation. Considering the economic downturn that began in 2008, it is easy to conclude that libraries are looking for ways to justify cancellations. However, the economic downturn has not ultimately changed the fact that libraries are using usage statistics to determine renewals and cancellations. A survey conducted in 2006 found that “the most cited purpose for reviewing and analyzing vendor-supplied usage data was for making subscription decisions (94% of respondents), followed by justifying expenditures (86%).”¹ Usage statistics are not the *only* variable used in budgeting decisions, but they certainly play a large role, particularly with the release of new statistics modules from companies such

as Scholarly Stats, Ex Libris, and Serials Solutions. These tools have functionality that when combined with the cost of items managed in the ILS offer a look at cost-per-use and other more granular types of data.

Overall, what we can conclude from this informal survey is that the collection of vendor-supplied usage statistics continues to have a significant manual element. While there has been a steady increase in the number of publishers and vendors who are COUNTER-compliant, some content providers have still not adopted this standard. Additionally, the SUSHI protocol is elegant, but has not yet enjoyed widespread adoption.

Even those libraries that outsource usage statistic collection often have to manually collect statistics for the “as needed” request. Finally, usage statistics are clearly used for collection development decisions.

Interviews with Practitioners

In an effort to more fully expand on the findings from the survey, the authors conducted three follow-up interviews with librarians at three Association of Research Libraries (ARL) institutions. When asked what was the biggest challenge facing her with regard to usage statistics, one librarian noted that her institution outsources to a third party for the collection of usage statistics, and at times she is uncertain whether or not the statistics are completely accurate. Because she outsources, it allows her to concentrate her energies elsewhere, yet outsourcing inherently means a certain loss of control. For example, publishers are not exempt from making mistakes with their usage statistics. It is not uncommon to see posts to e-mail lists from publishers or content providers indicating that a certain time period had incorrect usage reported and libraries will therefore need to adjust their historical counts. When usage statistics collection is outsourced, it is important to verify that the third party monitors publisher posts such as the one described above and goes back to correct historical counts for its customers.

A challenge mentioned by all three librarians was the amount of manual effort still required for usage statistic collection. Two of the three were using a third party to assist with usage statistic collection and aggregation, but all three saw a manual element remaining for the foreseeable future. There will continue to be those publishers who are not COUNTER-compliant, and there will continue to be those “as needed” requests from administration

and from subject specialists. As a segue from the manual component, one librarian questioned the cost-benefit analysis for the amount of time spent on collecting, aggregating, and analyzing usage statistics at her institution. Particularly for “core” electronic resources in a given field—for instance, an electronic resource subscription required for accreditation of some sort—is it truly worth the time and effort to collect monthly statistics?

The time required for any task must be closely evaluated, especially for already overtaxed librarians charged with the acquisition and maintenance of electronic resources. In a survey of electronic resources librarian job position announcements reported in a 2007 issue of *Collection Management*, Albitz and Shelburne describe the typical e-resources position: “In order to ensure that all ER [electronic resources] activities are accomplished, administrators have had to design positions which only a superhuman could perform successfully, or create ‘kitchen sink’ positions which include a variety of disjointed responsibilities that no current employees perform.”² Indeed, the management of electronic resources is chaotic and ambiguous, and for the three librarians interviewed, usage statistic collection and analysis was limited to the bare minimum of what was required by administrators, subject specialists, and outside agencies such as the Association for Research Libraries. Echoing the comments received in the survey, two of the interviewees noted that they would like to implement SUSHI, but they currently did not have the time and things were “working okay” as is.

One librarian noted that at her institution, there was a subject specialist in the sciences who is a “usage stat fiend”; this particular librarian collected and analyzed a number of publisher and content provider statistics herself. Perhaps that is one answer to the overworked e-resources librarian—the collection at the larger level as required by outside agencies or administrators is conducted centrally and the remaining tasks, for renewal and cancellation decisions, are delegated to the subject specialists. Of course, this becomes problematic because usage statistics available at vendor websites are often intertwined with other functionality in the administrative modules; thus, distribution of sensitive administrative module usernames and passwords is a delicate matter.

E-books introduce another layer of complexity to the picture. Collecting statistics for e-books is challenging for librarians who are already overtaxed with usage collection for other e-resources, so one librarian who was interviewed mentioned that she is considering patron-driven acquisition. Patron-driven acquisition is a model that has been in existence for at least the past decade but has been slow to catch on. However, it has recently enjoyed more success with the emergence of more e-book aggregators, such as ebrary, EBL, MyiLibrary and others. Sue Polanka

generally defines patron-driven acquisition: “Working with a selected vendor, librarians establish a profile based on LC classification, subject, educational level, publication date, cost, and other criteria. E-book titles that match the profile are then shared with the user community via MARC records in the catalog. Once a patron discovers and views an e-book, it is purchased for the collection. There are several iterations of this purchasing model, depending on the selected vendor.”³

It is important to note that there is a fairly high degree of variability among the models available from the vendors. For example, the vendor may offer customization of the number of e-book patron views before the content is automatically purchased. Regardless of the model, the librarian is still in charge of customizing the profile for his or her institution based on local needs. Patrons contribute to the acquisition process through a controlled environment. With patron-driven acquisition, use literally drives the selecting and purchasing process. In addition to going direct to e-book aggregators, several of the book jobbers, such as Yankee Book Peddler and Coutts, offer patron-driven acquisition. In much the same way that serials agents have had to reinvent themselves with the explosion of e-journals, book jobbers are beginning to see a similar need for reinvention with the continual increase in e-book acquisition.

Not surprisingly, all three librarians explained that usage statistics are one criterion considered at the point of renewal for an electronic resource. Usage statistics are not the *only* consideration, however. Perhaps if the subject librarian is ambivalent about the renewal of a given resource, usage statistics might play a larger role in the decision-making process, but again, usage is rarely, if ever, the only criterion. According to one of the interviewees, extremes raise a red flag, thus causing her to dig deeper, to discover why a resource is enjoying very high usage or experiencing very low usage.

The analysis of usage statistics can be highly localized as well. If an institution has a strong program in a fairly esoteric subject with a very productive but small faculty, then low usage can be justified. Moreover, if one of these productive faculty members is high profile in his or her field, variables that are less easily measured and collected contribute to the renewal decision. The use of the database by one person could attract students to the institution as well as contribute to the awarding of grants and other external funding. The institutional return on investment for the purchase price of the e-resource can be much greater than what is reflected in the usage statistic report.

One librarian who was interviewed mentioned that she is particularly intrigued by the deeper usage analysis made possible by projects such as Project MESUR and variables like the Eigenfactor. She noted that straight

usage statistics do not capture the relational aspects among content, so she is encouraged by Project MESUR and Eigenfactor, as well as the introduction of relational recommender tools such as Ex Libris's bX Recommender Service. The wealth of usage data at our fingertips allows researchers to explore the relationships among content, thus paving the way for a broader and more complete usage picture.

For More Information

Project MESUR

www.mesur.org/MESUR.html

Eigenfactor

www.eigenfactor.org/whyEigenfactor.htm

bX Recommender Service

www.exlibrisgroup.com/category/bXOverview

Usage statistics are another item in the storehouse of supplies that the electronic age has given us. Initiatives such as COUNTER have normalized statistics across vendors and publishers and cleared the way for third-party providers to create and sell additional products and services to librarians. While progress has certainly been made in the usage statistic arena, much work is left to be done, such as decreasing the amount of manual effort still remaining and expanding the scope and crosspollination of statistics across varying silos.

What Is Next?

To determine what is the next evolution in the usage statistic saga would require a visit to the oracle at Delphi. In an effort to survey what is the next trend in usage statistics, Douglas King, in an article published in the *Journal of Electronic Resources Librarianship* in 2009, asked a publisher, several librarians, and Peter Shepherd, the director

of COUNTER, that very question. Their answers reflected what we have discussed in this *Library Technology Report*. What follows is a very cursory summary of their responses; the full article, and Volume 21, Issue 1 of the *Journal of Electronic Resources Librarianship*, offer a wide-ranging and intelligent discussion of many of the issues surrounding use and usage. Those that King interviewed noted that there will be greater emphasis on the need for use data at a more granular level—the article level—and that will impact how we measure journal quality. As with higher education and other arenas in general, librarians are being asked to assess the value of resources in real and understandable terms, so there will be more emphasis on demonstrating the institutional or community return on investment via all types of library metrics. The economic downturn of 2008 and beyond has meant the analysis of usage statistics leads to very real cancellation and collection decisions. Greater adoption of SUSHI and outsourcing to third parties will significantly reduce the arduous and manual task currently performed in house in many libraries. Perhaps one librarian said it best: “I have no doubt that five years from now, we will look back at the present day and marvel at how much institutional effort was required to do what will be done then, in the near future, nearly effortlessly.”⁴ Indeed, one hopes he is right.

Notes

1. Gayle Baker and Eleanor J. Read, “Vendor-Supplied Usage Data for Electronic Resources: A Survey of Academic Libraries,” *Learned Publishing* 21, no. 1 (Jan. 2008): 51.
2. R. S. Albitz and W. A. Shelburne, “Marian through the Looking Glass: The Unique Evolution of the Electronic Resources Librarian Position,” *Collection Management* 32, no. 1/2 (2007): 16.
3. Sue Polanka, “Off the Shelf: Patron-Driven Acquisition,” *Booklist* Online website, www.booklistonline.com/default.aspx?page=show_product&pid=3226359 (accessed May 17, 2010), originally published in Jan. 1, 2009, *Booklist*.
4. Douglas King, “What Is the Next Trend in Usage Statistics in Libraries?” *Journal of Electronic Resources Librarianship* 21, no. 1 (2009): 8–9.