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Eva Jurczyk, Pamela Jacobs

portal: Libraries and the Academy, Volume 14, Number 4, October 2014, pp. 617-631 (Article)

Published by The Johns Hopkins University Press
DOI: 10.1353/pla.2014.0029

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What's the Big Deal? Collection Evaluation at the National Level

Eva Jurczyk and Pamela Jacobs

abstract: This article discusses a project undertaken to assess the journals in a Big Deal package by applying a weighted value algorithm measuring quality, utility, and value of individual titles. Carried out by a national library consortium in Canada, the project confirmed the value of the Big Deal package while providing a quantitative approach for member libraries to assess their participation and to select key titles if participation becomes financially unsustainable. The article establishes the need to consider multiple proxies for journal value in collection evaluation and encourages collaborative evaluation approaches.

Introduction

The rising cost of serials and the pressure these rising costs exert on library collections are not new phenomena. The Association of Research Libraries (ARL) has been reporting an annual increase in the cost of serials expenditures since 1986 that at least doubles the consumer price index (CPI), a measure of inflation in the United States calculated by the U.S. Bureau of Labor Statistics.¹ Also not new is the criticism of serials pricing within Big Deal licensing arrangements by those in the academic library community.² The major jolt to the status quo in recent years has come in the form of severe reductions to library budgets as a result of the global economic crisis.³

The reduction of collections budgets has forced many libraries to closely consider each resource being purchased or licensed, and the value provided by consortia licensing arrangements has in some cases not been enough to make up for the budget shortfall.⁴

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portal: Libraries and the Academy, Vol. 14, No. 4 (2014), pp. 617–631.

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Established in 2000, the Canadian Research Knowledge Network (CRKN) is a partnership of Canadian universities dedicated to expanding digital content for the academic research enterprise in Canada.⁵ Representing seventy-five Canadian university libraries, CRKN negotiates the purchase and licensing of digital content from key national and international academic publishers. CRKN was first established as the Canadian National Site Licensing Project, a project that secured \$20 million in federal funding and matching funds from provincial governments and universities to provide access to key electronic journals and citation databases. After the government funding ran out, universities wishing to retain access to licensed resources had to pay for continued access from their library budgets. CRKN has continued to expand its content offering, increasing the breadth of available resources and leveraging buying power to secure favorable pricing.

Currently CRKN offers members 52 licenses, totaling \$88 million annually in content and license agreements. The growth of the digital content landscape has allowed CRKN to offer to subsets of member libraries specialized content from vendors including ARTstor, a distributor of digital images; Informa Healthcare, a medical and scientific publisher; and Alexander Street Press, a publisher in the humanities and social sciences. The majority of CRKN members continue to participate in a core offering of Big Deal packages from vendors including Elsevier, Springer, Wiley-Blackwell, Taylor & Francis, and JSTOR. The size of these packages and the three-year license agreement negotiated by CRKN mean that members commit a large portion of their collections budgets to CRKN-licensed resources. As the price of these packages continues to rise, and as budgets stay flat or decline, members who currently license these packages may not be able to continue participation. Recognizing the economic pressure faced by some members, CRKN undertook a project to review where to focus resources and to ensure that packages licensed are of high value. This paper will report the findings of the 2012 Journal Value Metrics (JVM) pilot study that reviewed a Big Deal journal package licensed by a national consortium, and the value that package delivered to subscribing institutions.

Study Goals

The decision to enter into a Big Deal arrangement is one that each CRKN member takes after a careful and complex cost-benefit analysis is conducted at the institutional level to see whether the value of the arrangement justifies the expense. The decision to renew or to opt out of an existing license should be taken with equal care. Building off work that had already been done to evaluate licenses at institutions in our community and work being done at the consortia level in the international community, the CRKN study sought to answer a series of questions:

- (1) Is there a benefit to evaluating collections collaboratively?

CRKN's members range from an undergraduate university with a full-time equivalent of 300 students to one of the top three research libraries in North America. One of the key goals of this initial study was to determine if the members were simply too different to consider an overall collection evaluation model and to determine what value, if any, CRKN brought to the evaluation of journal packages. Given the human resources necessary to undertake a study, CRKN questioned whether a rigorous, quantitative

evaluation had more value than the simpler models of collection evaluation currently in place at the local level, namely, measures of usage and cost-per-use.

(2) Does the value of journals remain constant irrespective of institution type and size?

To determine if national collection evaluation was feasible beyond this pilot project, we hoped to understand if individual journals generally retain their value at any institution, or if we would be required to tease apart university characteristics, including language of instruction; presence of a medical, engineering, or business school; and size of student population.

(3) Is there an affordable way to dismantle Big Deals while continuing to foster research and promote access to electronic resources?

CRKN and its members recognize that Big Deals that grow substantially and become more expensive year after year are not cost sustainable. Despite this understanding, it is our organization's mission to build knowledge infrastructure and research capacity in Canadian universities. Through the pilot, we hoped to understand how dismantling the Big Deal might affect that mission. We also hoped to determine if there is way to create smaller, more affordable packages from just the most valuable journals that would be both cost-effective and provide a breadth of content to support research and teaching.

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Literature Review

In the context of library electronic resources, a Big Deal allows libraries to buy access to all of a commercial publisher's content for a fixed price. The price is usually determined by an existing base of subscribed content plus an incremental additional cost.⁶ During the move from paper to digital journals, rather than offering discounts to libraries and consortia to reflect the reduced cost of production, publishers offered additional content for a nominal fee.⁷ The term "Big Deal" was first popularized by Kenneth Frazier, who leveled a series of criticisms at the model. Frazier was concerned that Big Deals enhance loyalty on the part of libraries, forcing them to retain subscriptions even if their needs change or the value of the journals offered diminishes. He was also concerned that Big Deals give publishers the power to control the information market, and the power to redefine the landscape of information dissemination through inflexible policies for scholarly sharing and by siphoning resources away from materials not included in Big Deal packages.⁸

Despite criticisms, Big Deals have provided benefits to subscribing institutions. For example, they have offered price discrimination that has allowed medium and small institutions to access content that would be unaffordable if subscribing to individual titles.

Despite criticisms, Big Deals have provided benefits to subscribing institutions. For example, they have offered price discrimination that has allowed medium and small institutions to access content that would be unaffordable if subscribing to individual titles.⁹ They also provide price protection, because negotiated annual increases are typically lower than the increases on individual journal titles.¹⁰

As increasing budget pressures have made their way into libraries, a greater focus has been placed on defining the quality and value of these journal packages. Tracking usage of individual titles has been a preferred method for determining cost-effectiveness.¹¹ Such tracking is aided by definition of Counting Online Usage of Networked Electronic Resources (COUNTER), an agreed international set of standards and protocols governing the recording and exchange of online usage data.¹² When evaluating digital content licenses, usage can be a proxy for value. In a study of the usage of journal titles in a health sciences library, Barbara Shearer, Carolyn Klatt, and Suzanne Nagy found a correlation between usage and titles that had been selected for quality as part of a core list.¹³ But other researchers have found that, in general, the inclusion of new or poorly used journals in a Big Deal package creates usage statistics even where a journal has little or no reputation.¹⁴

Usage can be a poor proxy for value, however. A poorly used journal may have significant value for key researchers, while a well-used journal may offer little in the way of substantive research data.¹⁵ Relying solely on usage for the evaluation of multidisciplinary journal packages can also be problematic, as usage can be concentrated in particular areas of study. Deborah Bleic found when surveying Big Deals that more than 50 percent of uses in the packages evaluated were of journals in the health sciences.¹⁶ A study of seven universities in northwestern Spain focusing on overall downloads indicated that users in chemistry and biology were the heaviest users of electronic resources.¹⁷ A review of the usage patterns of four Ohio universities found that science content represented 42 percent of the use of digital resources at a large research-intensive university, and medical content represented 41 percent of use at a medium-sized research-intensive university.¹⁸ A study of the Ontario Council of University Libraries identified the heavy representation of resources used for undergraduate teaching, finding that 50 percent of electronic resource usage was by undergraduates and that the use of resources for funded research represented only 26 percent of use.¹⁹

The limitations of relying on usage suggest that libraries should consider balance and breadth in collection evaluation, defined by Joan Zivich as “matching journal holdings

with your [institution]’s profile . . . annually reviewing titles with an eye to cost-effectiveness . . . representing scope and comprehensiveness of the collection.”²⁰ What makes a journal valuable is the consensus of authors, reviewers, editors, libraries, readers, tenure committees, and indexing services that the journal is of high quality.²¹ To quantify this quality, scholars have established certain measures, including Impact Factor (IF), developed by Eugene Garfield of the Institute for Scientific Information;

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and Source Normalized Impact per Paper (SNIP), devised by Professor Henk Moed at the University of Leiden, the Netherlands. IF is measured by calculating the average number of citations attributed to papers published in a given journal. IF is problematic because journals in some disciplines are more highly cited; IF also measures all citations including letters, reviews, papers, and proceedings. SNIP attempts to overcome these limitations and instead normalizes citation counts based on the relative citation potential in a given discipline.²²

Research conducted by the Association of Research Libraries (ARL) shows that uptake of journal bundles from the major publishers has increased in the last ten years, with 90 percent or more of libraries surveyed subscribing to bundles from Elsevier, Springer, and Wiley-Blackwell. However, the composition of the bundles has changed and moved away from licensing the entirety of a publisher's list, toward smaller bundles.²³ The University of Oregon, for example, chose to keep only titles in their Elsevier package that represented 90 percent or more of total usage.²⁴ In partnership with two other universities, Oregon worked with Elsevier to create a title list that made a custom "medium deal." While the cancellation of a full Big Deal and the shrinking of a second reduced Oregon's collections expenditures by 18 percent, it is estimated that inflationary rates will necessitate that the university make further cuts to other packages in the 2014–2016 budget cycle to meet financial constraints. The University of Colorado undertakes the complex task of evaluating Big Deal purchases by using a return on investment (ROI) calculation that measures the benefits derived from the money spent.²⁵ While the ROI method allows Colorado to demonstrate the value of consortia purchasing, it does not address the value of individual titles or allow for planning to exit Big Deals. The California Digital Library (CDL), part of the University of California Libraries, is currently undertaking perhaps the most comprehensive value measurement for consortia purchasing of digital content. The CDL measurement seeks to use ob-

jective metrics to compare the value of scholarly journals licensed by the University of California Libraries.²⁶ The project will allow the University of California Libraries to pursue more sustainable prices for all of their journal packages by working with vendors to tie pricing to the unique value of journals to the university.

The California Digital Library conceived and developed methodology that can be customized to other institutions. Its approach uses a series of mathematical calculations called the CDL Weighted Value Algorithm, which measures value in three categories: utility, quality, and cost-effectiveness. The CDL is working toward assessing more than 9,000 journals in thirty-six licensed packages and has assigned each journal a numerical score to allow for comparison with other journals in subject groupings.²⁷ The CDL plans to focus its negotiations on the packages that it finds to be the lowest value. In July 2013, the CDL used the results of this value assessment in its decision to cancel a system-wide license to Taylor & Francis journals.²⁸

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Study Overview

The assessment method created by the CDL was the basis for the CRKN pilot journal package review.²⁹ While CRKN did not have the staff resources to carry out a project on the scale of the CDL initiative, the CDL method, and particularly the algorithm used to assign each title a numerical score, was believed to be a feasible study model. The CRKN pilot reviewed the Wiley-Blackwell journal package. The CRKN-Wiley Big Deal is multidisciplinary and contains approximately 1,400 journal titles. Importantly, 69 of the 75 CRKN members license the package, and for most members, this package is one of their top three journal packages in terms of annual expenditures. While collecting data on all 69 license participants was not feasible for the pilot study, 8 sample institutions were chosen as broadly representative of the total CRKN population. The sample institutions were evenly distributed among the country's four regions, with two institutions drawn from each of the Ontario, Quebec, Atlantic, and Pacific and Prairie regions. Institutions were sorted into eight size thresholds by averaging their external research funding, full-time enrollment, and full-time faculty. One institution from each size threshold was selected. The institutions chosen for the pilot represented the diversity of Canadian postsecondary institutions, both Anglophone and Francophone, and including a mix of research-intensive and undergraduate institutions.

Like the model established by the CDL, the Canadian Research Knowledge Network sought to assess each journal using a weighted algorithm measuring journal quality,

Like the model established by the CDL, the Canadian Research Knowledge Network sought to assess each journal using a weighted algorithm measuring journal quality, utility, and cost-effectiveness.

utility, and cost-effectiveness. Journal quality was established using Impact Factor (IF) and Source Normalized Impact per Paper (SNIP) for 2011. The IF is a measure reflecting the average number of citations in a given year to articles published in science and social science journals in the two preceding years. The IF data were gathered from information provided by the publisher in the journal description on the publisher's Web site. The SNIP is the ratio of citation impact per paper and the citation potential in its subject field. For the pilot study,

SNIP data were gathered from the Elsevier Scopus citation database, but SNIP values are available freely online at <http://www.journalmetrics.com/index.php>.

The utility of journals was measured using two metrics. One was the number of full-text article requests from a Journal Report 1 (JR1) summary compiled for 2011 by Counting Online Usage of Networked Resources (COUNTER), an international project that sets standards for online usage statistics. The other metric used to determine the utility of journals was the number of publications by faculty at the institution in question in each journal between 2007 and 2011. Usage is given twice the weight of faculty publications in the algorithm. The publisher provided 2011 usage figures for each title for each of the eight institutions in the pilot. Faculty publication figures were gathered from the Thomson Reuters Web of Science citation database by performing a search for each of the institutions in the "Organizations Enhanced" field searched against the title

of each journal in the package. The gathering of faculty publications data differs from the methodology established by the CDL. As a figure to supplement full-text usage to demonstrate utility, the CDL measured the number of faculty citations of each journal title. Gathering faculty citation data was not feasible as part of the CRKN pilot project. For this project, the more straightforward collection of faculty publication data was selected as a reasonable alternative metric to faculty citations in that it is also institution-specific and research-focused.

Journal cost-effectiveness was measured using cost-per-use and cost-per-SNIP. To measure cost-per-use for each title in the Big Deal package, the cost of each title, for each member, first had to be determined. The major size discrepancies among our membership made it necessary to devise a way to consider costs that reflected both the list prices of the journals and the sizes of the institutions. Cost was determined by gauging the percentage of each journal's cost within the total journal package. The vendor list price for each title was recorded, and then the list prices for all titles in the package were added together to produce a total package price. Each single-title list price was divided by the total package price to determine what percentage of the total package price was represented by each title. This percentage was then multiplied by the actual total package cost paid by each institution to find the cost of each title.

Table 1.
Formula for calculating single journal cost

Cost = (Single title list price/Total package price) x Institutional Actual Total Cost	
Cost for <i>ANZ Journal of Surgery</i> for Institution A $(\$1636^1 / \$2,256,437^2) \times \$5,384^3 = \3.90^4	Cost for <i>ANZ Journal of Surgery</i> for Institution H $(\$1636^1 / \$2,256,437^2) \times \$508,098.27^3 = \368.39^4
1) Vendor list price for <i>ANZ Journal of Surgery</i>	1) Vendor list price for <i>ANZ Journal of Surgery</i>
2) Sum of list prices of all titles in Big Deal package	2) Sum of list prices of all titles in Big Deal package
3) Institution A's total package cost	3) Institution H's total package cost
4) Institution A's cost for <i>ANZ Journal of Surgery</i>	4) Institution H's cost for <i>ANZ Journal of Surgery</i>

Once cost was calculated for each title in the package for each institution, cost-per-use was determined by dividing cost by number of uses. If there were zero uses of a title, cost-per-use was calculated as the full cost of the title. Cost-per-SNIP was calculated by dividing cost by the SNIP of each title. Where SNIP was unavailable, cost-per-SNIP was determined to be the full cost of the title.

Once the data for each institution and each title were gathered, the data were sorted to allow for the ranking of journals. Each of the six data points—usage, faculty publications, IF, SNIP, cost-per-use, and cost-per-SNIP—for each institution was sorted into quartiles and assigned a numerical value from 1 to 4. Data points in the lowest-value quartile were represented by a number “1,” and data from the highest-value quartile were

Table 2.
Formula for calculating journal score

Overall Score
$\text{Overall Score} = [(\text{Usage Quartile} \times 2 + \text{Faculty Pub Quartile}) / 3 + (\text{SNIP Quartile} + \text{IF Quartile}) / 2 + (\text{Cost-Per-Use Quartile} + \text{Cost-Per-SNIP Quartile}) / 2] / 3$

represented by a number “4.” For example, journals with the lowest cost-per-use were assigned as a “4,” while journals with the lowest IF were assigned a “1.” The algorithm is applied to the quartile values to assign an overall numerical score.

Once a total score for each journal for each institution was calculated, an overall score for each journal was determined by averaging the journal scores from the eight pilot institutions. Unlike the CDL study, the creation of benchmarks to compare packages with one another was impossible in the context of the small pilot. Instead, a comparison of the results for each pilot participant was undertaken to determine the value of conducting such an analysis on a larger scale.

Findings

Is There a Benefit to Assessing Big Deals Collaboratively?

The pilot study required a significant output of human resources, and a key consideration in the decision whether or not to continue work past the pilot phase was whether this use of human resources was justified, or whether similar results could be achieved

While the use of a resource is an important consideration, there are inherent limitations to usage as a sole measure of a journal’s value ...

using a simpler method. Within the academic library community, the most common indicator of the value of a journal is usage. The standardization of usage reporting via the COUNTER auditing requirements has made it much easier for evaluators to compare products on a level playing field. While the use of a resource is an important consideration, there are inherent limitations to usage as a sole measure of a journal’s value, as noted earlier.

Usage patterns vary by discipline, materials used for teaching and embedded in course management systems tend to have inflated usage figures, and resources used sparingly but for key research initiatives may have poor usage. A comparison of the top 100 journals as identified by the pilot study and the 100 most-used journals in the package by all of the pilot institutions confirmed the suspicions that a multifaceted approach was advantageous. Journals in both top 100 groups were sorted by general subject category, as identified by the publisher.

Figure 1. Journal subject distribution among top journals and in full journal package

The overall distribution of the journal package placed about 40 percent of titles under the social sciences and humanities (SSH) heading and about 60 percent of titles under the science, technology, and medicine (STM) heading. The top 100 titles as determined solely by usage placed 14 percent of titles under the SSH category and 86 percent of titles under STM. Using the results of the pilot to determine the top 100 titles, about 40 percent of titles came under the SSH heading and around 60 percent under the STM heading. The close relationship between the subject distribution of journals in the pilot study and the overall distribution of journals in the package suggests that a multifaceted approach, while labor-intensive, helps to ensure that the more inclusive representation of value is more fully understood at both the institution and consortium level.

Does the Value of Journals Remain Constant Across Institutions?

Journals were considered to be of high value if their total numerical score placed them in an institution’s top quartile, or the top quartile overall as determined by averaging the eight scores of the pilot institutions. Of the 1,440 journals in the Big Deal package,

Table 3.

Percentage of each institution's top quartile journals in the overall top quartile

Institution	Percentage of institution's top quartile journals in the overall top quartile
Institution A	76%
Institution B	77%
Institution C	83%
Institution D	81%
Institution E	81%
Institution F	77%
Institution G	81%
Institution H	81%
Average	80%

Table 4.

Number of each institution's top 100 journals in the overall top 100

Institution	Number of institution's top 100 journals in the overall top 100
Institution A	65
Institution B	62
Institution C	69
Institution D	68
Institution E	71
Institution F	74
Institution G	74
Institution H	74
Average	69%

360 were in the highest-value quartile. The first conclusion drawn was that a journal is valuable irrespective of the type or size of institution evaluating the journal. Taken together, 80 percent of the journals in each institution's top quartile were in the overall top quartile.

The overall top 100 journals fell within the top quartile for each of the sample institutions. Likewise, a low-value journal is of little worth notwithstanding the individual

characteristics of an institution. The same overlap rate of 80 percent was demonstrated when examining the journals in the bottom quartile. The apparent homogeneity of needs across the institutions led to the question: could a fixed package of just the top 100 titles be created as an alternative to the Big Deal? A survey of the overlap between the overall top 100 and each institution's top 100 revealed that the uniformity of needs among the members exists only at the high level.

While there were similarities in each institution's top 100, the overlap rate of 69 percent was not sufficiently high to allow a smaller package to meet the research and teaching needs of all or even most member institutions.

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Can We Dismantle Big Deals and Still Meet Users' Needs?

Confident that we had identified the most valuable journals for each of the institutions included in the pilot, we wanted to determine whether licensing only the most valuable titles was possible; specifically, could each institution see cost savings while still meeting the teaching and research needs of faculty and students? For each institution, the list price of the journals in their top quartile were added together and compared with their current total package price.

The findings were discouraging. While the price increases of Big Deal packages have drawn criticism, the utilization of multiyear contracts and the purchasing power of regional and national consortia have, in many ways, regulated these prices. The list prices of individual journal titles have

not been subject to this same constraint and as such have increased at a rate much higher than the Big Deal package prices. If paying the individual list prices for each journal title in their top quartile instead of their Big Deal package cost, the smallest two universities in the pilot would see their costs increase from \$5,385 and \$20,537 to \$256,493 and \$292,199,

respectively. While all of the institutions in the pilot had statistically similar top quartiles, the major difference was that the larger, more research-intensive universities generally included the highest-cost journals in their top quartile. This finding is likely because these larger universities have medical, engineering, and business schools, and titles in these disciplines are, on average, more expensive. The largest universities would see some cost savings if moving from the Big Deal to individual subscriptions, but these savings are minimized because of the increased cost of the journals in the large institutions' top quartiles. The biggest savings would be seen by one institution (Institution G in Table 4), which would move from \$555,977 for the Big Deal package to \$492,639 for individual subscriptions to the journals in its top quartile. While a savings of 11 percent

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Figure 2. List prices for journals in each institution's top quartile versus Big Deal package price

is significant, it does not seem important enough to justify the accompanying loss of 1,080 titles for a large research library.

Conclusion and Next Steps

The key question answered by the study is that there is indeed a benefit to evaluating collections collaboratively, despite major differences amongst institutions. As more of each institution's collections budget is funneled into Big Deal licenses that are negoti-

As more of each institution's collections budget is funneled into Big Deal licenses that are negotiated by consortia, it becomes the responsibility of each institution and each consortium to understand how every Big Deal is working for individual institutions and for the group.

ated by consortia, it becomes the responsibility of each institution *and* each consortium to understand how every Big Deal is working for individual institutions and for the group. Central negotiation should mean central evaluation. The team negotiating on behalf of a consortium must understand how a particular package is serving the needs of the mem-

bership and whether there is value in continued participation, and should negotiate accordingly. A centralized approach to license evaluation will not replace the need for consortium members to conduct this work at the local level, but it will facilitate their own assessment work. Much of the data used for journal evaluation in this study—the SNIP, the IF, and the list price—need only be gathered once. Once the data have been

collected, the members can share the information widely and add it to institution-specific data. Access to this information may encourage institutions that have not traditionally engaged in evaluation activities because of lack of capacity to take on more of this work, and to look at their collections more critically.

The key finding from the study is that without movement from the vendors on individual list prices, a consortia-negotiated Big Deal continues to represent the best value for a comprehensive suite of content. Despite this demonstrated value, the continued licensing of Big Deals by individual institutions or by consortia is not a certainty, and ongoing analysis is a necessity. The result of budget pressures need not be the abandonment of the consortia relationship, but instead might be the leveraging of data and consortia buying power to create smaller deals populated by high-value journals. A review of the usage of titles in Big Deal packages is not a sufficiently multifaceted approach to determine key high-value journals for research and teaching at each institution.

To work with member institutions to apply these findings, CRKN has provided members with an overview of the method

used in the study, including a sample spreadsheet that lists all formulas and all reusable data (SNIP, IF, list price) for the package sampled. As part of the renewal process, the negotiating team is now asking vendors to provide COUNTER JR1 statistics for all participating institutions as part of their renewal offer.

What emerged from the key findings was the knowledge that more work was necessary. The methodology may be further expanded to compare titles from several publisher packages according to subject, in the same way CDL librarians are evaluating their packages. To ensure that the right Big Deals, containing the right titles, are being licensed for the right price, the consortium will review the feasibility of conducting such assessment on the larger scale, while looking to the broader library community to learn about new assessment practices and review innovative methods of evaluation as they emerge. The results of quantitative studies of journal value can be further applied.

Eva Jurczyk was formerly the member services and licensing officer for the Canadian Research Knowledge Network (CRKN) in Ottawa, ON, and is currently the research evaluation coordinator for the University of Toronto's Faculty of Medicine; she may be reached by e-mail at: eva.jurczyk@utoronto.ca.

Pamela Jacobs is information resources librarian at the University of Guelph Library in Ontario; she may be reached by e-mail at: pjacobs@uoguelph.ca.

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Notes

1. Association of Research Libraries (ARL), *ARL Statistics 1998–1999* (Washington DC: ARL, 2000), accessed July 4, 2013, http://eprints.rclis.org/8940/1/Pricing_and_Publishing_Models_of_Ejournals_for_SRELS.pdf.
2. Kenneth Frazier, "The Librarian's Dilemma: Contemplating the Costs of the 'Big Deal,'" *D-Lib Magazine* 7, 3 (2001), <http://www.dlib.org/dlib/march01/frazier/03frazier.html>; David Ball, "What's the Big Deal and Why Is It a Bad Deal for Universities?" *Interlending and Document Supply* 32, 2 (2004): 117–25, doi: 10.1108/02641610410538586; Jonathan Nabe and David C. Fowler, "Leaving the 'Big Deal': Consequences and Next Steps," *Serials Librarian* 62, 1–4 (June 2012): 59–72, doi:10.1080/0361526X.2012.652524; Aaron S. Edlin and Daniel L. Rubinfeld, "Exclusion or Efficient Pricing? The 'Big Deal' Bundling of Academic Journals," *Antitrust Law Journal* 72, 1 (2004): 119–57, <http://www.jstor.org/stable/40843619>.
3. ARL, "ARL Statement to Scholarly Publishers on the Global Economic Crisis, February 19, 2009," accessed July 4, 2013, <http://www.arl.org/storage/documents/publications/global-economic-crisis.pdf>.
4. Nabe and Fowler, "Leaving the Big Deal," 63.
5. Canadian Research Knowledge Network, "A History of the Canadian Research Knowledge Network," accessed July 4, 2013, <http://www.crkn.ca/about/history>.
6. Frazier, "The Librarian's Dilemma."
7. Ball, "What's the Big Deal," 121.
8. Frazier, "The Librarian's Dilemma."
9. Edlin and Rubinfeld, "Exclusion or Efficient Pricing?" 122.
10. Nabe and Fowler, "Leaving the Big Deal," 63.
11. Joan Zivich, "Journal Collection Evaluation," *Journal of Hospital Librarianship* 1 (2001): 135, doi:10.1300/J186v01n01_18.
12. "COUNTER: Counting Online Usage of Networked Electronic Resources," accessed June 22, 2013, www.projectcounter.org.
13. Barbara S. Shearer, Carolyn Klatt, and Suzanne P. Nagy, "Development of a New Academic Digital Library: A Study of Usage Data of a Core Medical Electronic Journal Collection," *Journal of the Medical Library Association* 97, 2 (April 2009): 100, doi:10.3163/1536-5050.97.2.005.
14. Edlin and Rubinfeld, "Exclusion or Efficient Pricing?" 132.
15. Judy Luther, White Paper on Electronic Journal Usage Statistics (Washington, DC: Council on Library and Information Resources, 2000): 3, <http://www.clir.org/pubs/reports/pub94/pub94.pdf>.
16. Deborah D. Bleck, Stephen E. Wiberley Jr., Joan B. Fiscella, Sara Bahnmaier-Blaszczak, and Rebecca Lowery, "Deal or No Deal? Evaluating Big Deals and Their Journals," *College and Research Libraries* 74, 2 (March 1, 2013): 189, <http://crl.acrl.org/content/74/2/178.short>.
17. Blanca Rodríguez Bravo, María Luisa Alvite Díez, Leticia Barrionuevo Almuzara, and María Antonia Morán Suárez, "Patterns of Use of Electronic Journals in Spanish University Libraries," *Serials Review* 34, 2 (2008): 121, doi:10.1016/j.serrev.2008.01.002.
18. David Nicholas, Paul Huntington, and Hamid R. Jamali, "Diversity in the Information Seeking Behaviour of the Virtual Scholar: Institutional Comparisons," *Journal of Academic Librarianship* 33, 6 (2007): 636, doi:10.1016/j.acalib.2007.09.001.
19. Marisa Scigliano, "Measuring the Use of Networked Electronic Journals in an Academic Library Consortium: Moving Beyond MINES for Libraries in Ontario Scholars Portal," *Serials Review* 36, 2 (2010): 76, doi:10.1016/j.serrev.2010.03.003.
20. Zivich, "Journal Collection Evaluation," 135.
21. Edlin and Rubinfeld, "Exclusion or Efficient Pricing?" 129.

22. Loet Leydesdorff and Tobias Opthof, "Scopus's Source Normalized Impact per Paper (SNIP) Versus a Journal Impact Factor Based on Fractional Count of Citations," *Journal of the American Society for Information Science and Technology* 61, 11 (2010): 2265, doi:10.1002/asi.21371.
23. Karla L. Strieb and Julia C. Blixrud, "The State of Large Publisher Bundles in 2012," *Research Library Issues* 282 (Spring 2012): 14, <http://publications.arl.org/rli282/13>.
24. Nabe and Fowler, "Leaving the Big Deal," 63.
25. Denise Pan and Yem Fong, "Return on Investment for Collaborative Collection Development: A Cost-Benefit Evaluation of Consortia Purchasing," *Collaborative Librarianship* 2, 4 (2010): 183–92, <http://collaborativelibrarianship.org/index.php/jocl/article/viewFile/108/72>.
26. Jacqueline Wilson, "Journal Value Metrics Assessment," California Digital Library, last modified March 30, 2010, www.cdlib.org/cdlinfo/2010/03/30/journal-value-metrics-assessment/.
27. Jacqueline Wilson and Chan Li, "Calculating Scholarly Journal Value Through Objective Metrics," California Digital Library, last modified February 13, 2012, <http://www.cdlib.org/cdlinfo/2012/02/13/calculating-scholarly-journal-value-through-objective-metrics/>.
28. "UC Libraries Discontinue Taylor & Francis Systemwide Journals License," California Digital Library, last modified July 3, 2013, <http://www.cdlib.org/cdlinfo/2013/07/03/uc-libraries-discontinue-taylor-francis-systemwide-journals-license/>.
29. The authors wish to thank Jacqueline Wilson of the California Digital Library (CDL) for valuable discussions of the CDL Journal Value Metric project in the early stages of this project.