

## **Journal publishers' Big Deals: Are they worth it?**

Around the turn of the millennium, scholarly journal publishers made the shift to online publishing. Once their distribution infrastructures were in place, they replaced their title-by-title purchase model with subscriptions to large bundles of periodicals (known familiarly as “Big Deals”). With this new approach, universities suddenly had online access to every one of a publisher’s titles for a price equivalent to the sum of their existing print subscriptions. Though initially viewed as a panacea, the model soon began crippling university libraries financially, leaving them in an all-or-nothing situation. With exponential increases that reached 402% over a 20-year span,<sup>i</sup> the spiralling cost of these large bundles rapidly put pressure on available budgets for books and journals from smaller learned societies. The latter, meanwhile, were gradually swallowed up by the major publishers, leading to an oligopoly situation. Today, five major publishers control more than half of the market for academic publications.

Against that background, and facing severe financial challenges, the Université de Montréal (UdeM) Libraries had to work hard to implement solutions that would enable it to balance its document holdings and regain control of expenditures. UdeM, Canada’s second-largest university as measured by research intensity and student population, was already facing monetary constraints when the Government of Québec brought in significant budget cuts that only hastened the Libraries decision: it could no longer cut back on book purchases to absorb the periodicals price hikes. Something had to be done about the largest single expenditure item: the periodicals Big Deals.

Introduced in 2014, the [\*Nouvelle ère pour les collections\*](#) (“New Era for the Collections”) operation marked the start of a rigorous thinking exercise by the Libraries and its user community, aimed at assessing the latter’s true needs and adjusting the periodicals collection accordingly.

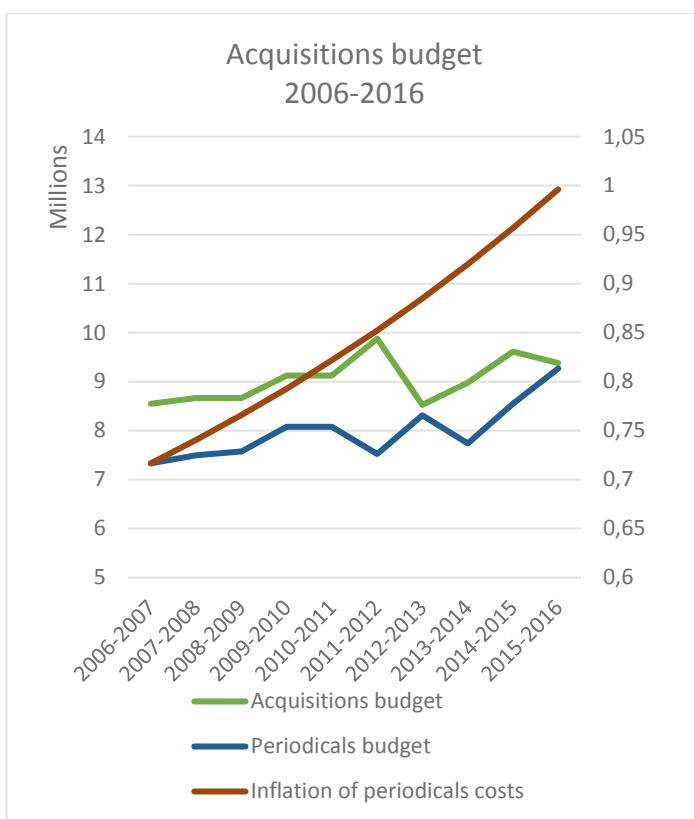


Figure I Evolution of UdeM’s acquisitions budget between 2006 and 2016

### A first step: unbundling Wiley Online Library

Work to unbundle UdeM’s Big Deals began in 2014 with *Wiley Online Library* (WOL). Inspired by the methodology developed by the California Digital Library,<sup>ii</sup> the approach relied on quantitative indicators: download statistics,<sup>iii</sup> citations of articles by members of the community, and a combination of weighted indicators measuring the prestige of a publication, i.e., SNIP (Source Normalized Impact per Paper) and SJR (SCImago Journal Rank). This method isolated 376 periodicals of the 1,506 titles in the large bundle, or barely 25%. Those periodicals accounted for 68.3% of downloads during the previous year for that bundle.

Reaction from members of the community was swift: they recommended that we continue disaggregating the large bundles, but with a modified methodology that would closely involve faculty members. Rather than evaluate groups of periodicals in isolation, we would in future consider all periodicals, segmented by discipline so as to take into account distinct practices in each field. Above all, it now appeared essential that the community be consulted in order to properly assess the diversity of needs on campus; the operation could not rely solely on bibliometric indicators.

### The Working Group on Journal Collections

The Libraries set up the *Groupe de travail sur la collection de périodiques* (*Working Group on Journal Collections*). It comprised faculty members and students from varied fields, representatives of the campus libraries, and Vincent Larivière, a professor at the UdeM School of Library and Information Science who specializes in infometrics and bibliometrics and holds the Canada Research Chair on the Transformations of Scholarly Communication.<sup>iv</sup>

The Working Group was tasked with recommending an improved methodology for analysis and suggesting indicators that would consider the best interests of all disciplines and all user groups.

One of the Working Group's series of recommendations<sup>v</sup> was to sound out the community. The Libraries Branch therefore conducted a survey of faculty members and graduate students, asking them to answer two simple questions:

- 1) Name 10 periodical titles that are essential to your teaching/learning and your research
- 2) Name five periodical titles that are essential to your discipline overall

A total of 8,060 distinct titles emerged from this initial phase of consultation, out of a possible 106,000 learned publications in the *Ulrichsweb* database.

### **Bibliometric data**

The Working Group further recommended that data be collected on downloads and citations of periodicals over a five-year period. 16,816 titles were identified based on downloads, and another 9,075 titles based on the fact that they had been cited by community members.

### **Determining the essential titles**

The community consultation along with the download and citation data identified 26 843 unique titles. At this point, we could already see that barely half of our current subscriptions were useful.

With these three indicators established, the next step was to set an acceptable retention threshold to determine which titles were essential to the UdeM community. That threshold was set at 80% on an empirical basis, which was deemed to be balanced for the majority of the disciplines tested; moreover, it corresponds to the Bradford Law threshold, which posits that 20% of titles account for 80% of use.

Titles were distributed across four major fields: Humanities, Law and Arts (HLA); Health Sciences (HS); Natural Science and Engineering (NSE), and Social Science (SS). That distribution made it possible to group titles in comparable disciplines and for which similar download and citation behaviours are observable.

For each major field, periodicals that cumulatively accounted for 80% of downloads, or 80% of citations, or 80% of suggestions in the community survey were chosen. This 80% / 80% / 80% formula was applied to three of the major fields, with the fourth, *Humanities, Law and Arts*, treated differently: because citations do not constitute a legitimate indicator for that area, no titles were retained based on citations, and the threshold for the other two indicators—suggestions and downloads—was increased to 85% to compensate for withdrawal of the citations indicator and to maintain balance across all fields.

### **Validation by academic units**

In the end, of the 26,843 unique titles for which there had been downloads, citations or survey suggestions, 4,852 were identified as priority titles, corresponding to exactly 10% of our subscriptions. These titles were forwarded to the academic units for collective validation of the resulting list. The units were asked to give their opinion on the legitimacy of the priority titles, identify any major omissions, and/or withdraw titles. They added 1,041 titles. At the conclusion of this major analysis, the list of periodicals deemed essential to the UdeM community numbered 5,893 titles; i.e., only 12% of those to which we were subscribed. It bears mentioning here that our librarians were also involved to a great extent in the analytical work; they performed arbitrations at the end of the process to ensure fairness across the major fields to be served.

Half of the essential titles had been identified using bibliometric indicators, and the other half, using qualitative indicators. Our faculty members' intuition that bibliometric analysis had limitations when it came to determining the needs of a community thus proved accurate.

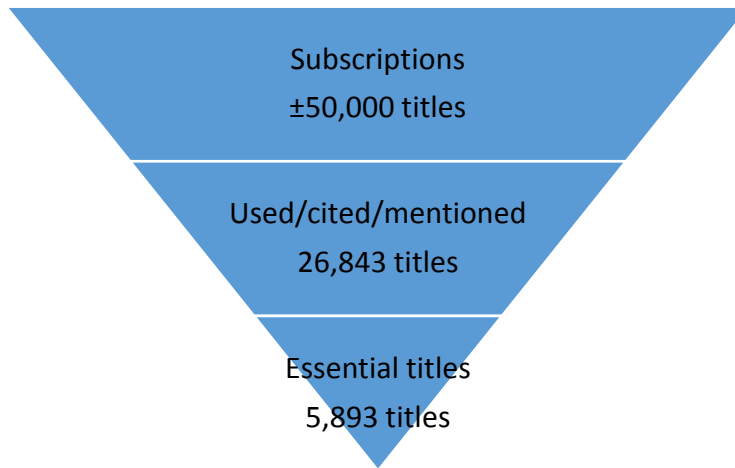


Figure 2 Global results of the analysis

### Essential titles in the large bundles

Correlating the essential titles with their respective large bundles was extremely revealing as to the true contribution of each bundle:

Publisher	Number of titles in bundle	Number of titles deemed essential for UdeM community	Ratio of essential titles to total
Elsevier	2,200+	735	33.4%
John Wiley & Sons	1,500+	553	36.9%
Springer Nature	2,300+	266	11.6%
Taylor and Francis Group	2,000+	253	12.7%
SAGE Publications	700+	247	35.3%

Table 1: Numbers of essential titles per large bundle

The bundles contained anywhere between 11.6% and 36.9% of our essential titles, with the remainder being accessory titles added at great expense during the process of acquisitions and mergers of publishing groups. From that point on, it became unthinkable to maintain these Big Deals given the exponentially rising costs.

## **Fair price**

This exercise highlighted a major difference between the publishers' and the UdeM libraries' understandings of the value of large bundles. On the one hand, there was the publishers' vision, where evaluation of the costs takes into account all titles offered, whether use is made of them or not. On the other, there was the libraries' assessment, in which only those titles essential to the UdeM community are considered in cost calculations. The unbundling negotiations therefore began against a backdrop of clashing visions. A publisher charging \$500,000 for a large bundle consisting of 2,000 titles evaluates the average cost at \$250, which seems reasonable. The reading is completely different, however, when considering the same \$500,000 cost against the approximately 250 essential titles that are part of the bundle: the average works out to more than \$2,000 per title, which is considerably higher.

We built up a cost assessment grid taking in consideration publishers' list price of our essential titles to establish large bundles' "fair price" to pay for an agreement. Setting up this grid allowed us to establish renewal strategies that isolated, on the one hand, those large bundles for which full renewal was impossible and, on the other, those for which unbundling was not worth it.

## **Spin-offs**

Since its introduction in 2015, this analysis method has enabled us to reach agreements that respect the fair-price principle with three major publishers. Subscriptions to their bundles have been maintained, and we now pay a price that is calculated based on the number of essential titles included in each. Conversely, we had to disaggregate the entire Springer Nature periodicals bundle, which was clearly counterproductive and for which we were unable to reach a favourable agreement. In circumstances where a large bundle contains few essential titles, there is a wide gap between the fair-price objective and the provider's expected income, which complicates discussions.

The negotiations that followed this major analysis exercise allowed us to achieve the savings targets we had set, which were of the order of \$1 million, or about 10% of our annual acquisitions budget. As a result, our book purchasing power has increased quite substantially.

## **Communications**

One of the greatest benefit derived from this entire process, however, has been in terms of the rapprochement with our community. The consultations we conducted were preceded by a wide-ranging communications program. Before the initial unbundlings, in 2014, we launched a website dedicated to the [\*Nouvelle ère pour les collections operation\*](#), held meetings with the faculty units and other bodies, and published articles, all with an eye to laying out the issues at stake in the crisis in academic journal publishing. After the unbundling of *Wiley Online Library*, in 2015, we presented the outcomes of the Working Group's work to our community and to the wider community of university libraries. At each stage of the process of analysis and renegotiations, we created multiple opportunities for discussion among our personnel, the faculty union, departments, senior administrators, and students' groups. Every effort was made to remind members of our community of their role in the scholarly publishing ecosystem and of the alternatives available to them, starting with Open Access publishing.

We demonstrated transparency and flexibility throughout the process of developing our methodology, and even resilience at certain critical junctures, when it was wiser to back down. We felt that, if we were to embrace such a risky and difficult proposition, bringing all stakeholders onside was essential. That social cohesion undeniably bolstered our discussions with the publishers.

## Conclusion

Following the initial Wiley's unbundling based on quantitative indicators, Université de Montréal refined its analysis methodology to incorporate qualitative indicators; i.e., the voice of its community. That methodology allowed identification of 5,893 periodicals deemed essential out of a possible 50,000 subscriptions. We realized that, at best, barely more than a third of the periodicals included in most Big Deals are truly of use. On the strength of that realization, we initiated discussions with all of the major publishers, each time bringing up the issue of the fair value of the large bundle. We associated that fair price solely with the value of the titles deemed essential. In other words, we made the needs of our community central to our basis for negotiation. That vision caused a clash of cultures. As such, we were able to conclude some negotiations in compliance with our principle of establishing overall value, but we were also forced to unbundle certain large bundles.

Before proceeding with these major changes, we had to implement a robust communications plan. The solidarity of our community was essential to building a compelling argument, establishing our credibility, and negotiating a fair price. There was no room for discretion: we had to clearly communicate the issues and publicly explain our approach, even if it meant making decisions with negative impacts. The impacts, incidentally, were moderate, because we proposed alternatives. It is also important to de-dramatize the subscription cancellations: what is being lost is instantaneous access, not access per se. Articles remain accessible, with a slight delay, through the inter-library loan and document delivery service.

The UdeM collections analysis project has resonated with other Canadian universities: it is currently being implemented in 28 of them, in the form of the Journal Usage Project (JUP)<sup>vi</sup> led by the Canadian Research Knowledge Network (CKRN). Engagement by other institutions and their communities expands on the vision that UdeM has worked to instil, and adds to the pressure that must be brought to bear on publishers to ensure sustainable, affordable access to knowledge.

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<sup>i</sup> American Research Libraries, *Monograph & Serial Costs in ARL Libraries, 1986–2011*, <http://www.arl.org/storage/documents/monograph-serial-costs.pdf>, viewed November 30, 2016.

<sup>ii</sup> California Digital Library, *Calculating scholarly journal value through objective metrics*, <http://www.cdlib.org/cdlinfo/2012/02/13/calculating-scholarly-journal-value-through-objective-metrics/>, February 2012, viewed November 30, 2016.

<sup>iii</sup> COUNTER standardized usage statistics do not distinguish between article downloads and online views.

<sup>iv</sup> Canada Research Chair in the Transformations of Scholarly Communication, <http://crc.ebsi.umontreal.ca/>, viewed November 30, 2016.

<sup>v</sup> Université de Montréal. Groupe de travail sur la collection de périodiques, *Rapport final*, [http://www.bib.umontreal.ca/a-propos/Rapport-GTCP-vf\\_14-10-2015.pdf](http://www.bib.umontreal.ca/a-propos/Rapport-GTCP-vf_14-10-2015.pdf), viewed November 30, 2016.

<sup>vi</sup> CRKN, *Journal Usage Project*, <http://www.crkn-rcdr.ca/en/journal-usage-project>, viewed November 30, 2016.