Big Deals and Squeaky Wheels: Taking Stock of Your Stats

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May 1, 2014
Annual NASIG Conference
OUTLINE

• Big Deals: Review of Libraries’ Experiences (Lea)
• Big Deal Assessment at KU (Lea, Angie will follow-up in detail later)
• Other Assessment Methods at KU (Lea)
• Overview of tools, tech, methods (Angie)
• Nuts and Bolts of Big Deal Assessment at KU (Angie)
• Hands On basics with spreadsheets (Angie)
During the initial study, statistics were gathered from COUNTER compliant publishers for the calendar year 2004. Titles were categorized into broad disciplines of social science, humanities, science, and clinical medicine. The complete list was used to generate a sample of 682 titles. The second study was done on the same 682 titles in 2005.

Humanities titles grew in use the most, but the use of electronic journals by the sciences and social sciences dwarfed the humanities overall.

The study also showed a significant use of titles not previously offered before the Big Deals (unsubscribed titles).

Big Deals are Good Deals?

- University of Florida Health Science Center and the University of Florida Smathers Libraries examined online journal usage and expenditures over broad disciplines for two calendar years (2004 & 2005) to compare usage over time.
  - Full-text downloads increased in all disciplines.
  - Distinct differences in usage patterns among the disciplines.
  - The Big Deal offers a huge savings over what would have been spent on document delivery.
  - Increasing costs for the Big Deal threatens the future of the print collection.
  - High use makes administrators reluctant to cancel.
This all sounds good, but predictions showing the relationship of expenditures between Big Deal packages, electronic resources, journal and standing orders, and books do not depict a nice picture for monographs.

Theoretically, with a library budget increase of 2% per year, a 13% allocation for books in 2007 would drop to zero in 2010 if all other resources were maintained at their current level.
Big Deals Really, Really are Good Deals?

- Librarians at Texas A&M University compiled and analyzed the cost and usage data for Elsevier ScienceDirect journals to determine the extent to which title-level contract pricing had diverged from current list pricing.
  - They calculated:
    - the cost difference between the 2002 list price and the 2007 list price, as a percentage of the 2002 list price.
    - the cost difference between the 2007 contract price and the 2007 list price, as a percentage of the 2007 contract price.
    - the cost per use by title for the 589 subscribed titles that were included in this analysis.
    - the cost per use of all titles in ScienceDirect in the aggregate, both subscribed and unsubscribed.

There was an aggregate 35% increase in list price for the 589 subscribed titles in the five years studied 2002-2007.

The 2007 contract price of the 589 subscribed titles in the aggregate was 4.4 percent less than the 2007 list price.

The aggregate cost per use was only $2.58.

Although there were some titles for which the contract price was greater than the list price, they were the outliers when considered among the pricing benefits seen across the other subscribed titles.

The limited number of titles showing a high cost per use were outweighed by the vast majority with significantly low cost per use.
Are Big Deals Really, Really, Good Deals?

- At Queensland University of Technology in Australia, an analysis of their 5 multi-year Big Deals was conducted to quantify return on investment.
  - Review of title level usage and investigation of pricing options to determine if it would be cheaper to unbundle and subscribe to individual titles.
  - All of the packages exhibited a high average cost per download for previously subscribed titles and significantly lower cost per download for non-subscribed titles.
  - Overall, there was a good return on investment and all 5 packages were renewed.
They are inflated by incidental use when a user accesses an article without intending to, or after downloading it, determines it to be of no use. Online articles are also subject to repeated use – when a user downloads the article once then goes back to read it again...maybe revisiting it multiple times. Linking from other resources directly to the HTML counts as a download and can also inflate the numbers whether it is read or not. The convenience of access can also inflate the numbers as users try to maximize the number of references reported without regard to the quality of the content.
Leaving the Big Deal

- Saved the monograph budget from dramatic cuts.
- Saved small press journals from being cut.
- Ability of swap titles beyond what is allowed in the Big Deals.

This is important because academic programs change over time and departments change, faculty come and go, and new programs are established. Big Deals restrict libraries from dealing with these changes.

In a better position to provide a collection more suited to the university community.
Leaving the Big Deal

- When renegotiating for the titles deemed essential, problems arise.
  - One publisher threatened to add a 25% surcharge on top of the price of the new subscriptions.
  - List price becomes the base price, reflecting a huge increase in cost.
  - No price caps from year to year.
  - Enforcing licensing agreements.

Which would have wiped out all the savings from leaving the Big Deal.

Making if possible for the publisher to raise the price at any rate they deemed necessary to make a profit.

SIUC also had to struggle with Springer to get them to abide by the terms in the license to provide archive access to the content they had already paid for.

Our cancellation of Springer E-Books.
Participated in unmediated pay per view with Elsevier to address content loss after a cancellation project in 2004/2005. As time went on, they needed to replenish their deposit account more frequently and episodes of download abuse led them to cancel the service.

Oregon joined forces with Oregon State and Portland State to create an ideal deal based on keeping the titles that represented 90% or more of their combined, overall usage within a proposed new arrangement, discarding most everything else.

They proposed target inflation rates and content fees and negotiated with Elsevier for a combined cancellation percentage.

They also negotiated a uniform title list of unsubscribed journals with a price cap….a medium deal.

Oregon got minimal complaints from faculty and students about breaking the Big Deal and ILL only went up a modest amount.
MSU was faced with a $500,000 shortfall in 2012 and had to make quick decisions.

The economics of the review showed that for Springer there were 75 titles downloaded more than a 100 times and 190 titles downloaded more than 50 times. In both cases, the package cost more than purchasing the individual titles.

For Wiley-Blackwell, there were 120 titles downloaded more than 100 times and 230 titles downloaded more than 50 times, costing $60,000 more than the package. However, subscribing to titles downloaded more than a 100 times would save $180,000.
The team working on the cancellations did not feel they had enough time to consult with faculty and their colleagues.

After the cancellation took place, librarians met with faculty to give them lists of current subscriptions in their disciplines, including cost and usage. Departments may elect to swap for titles they want more.

Now there is concern about accreditation on that campus.

Leaving the Big Deal

- Mississippi State wound up saving $400,000, but they lost access to more than 2800 titles.
- Many disciplines in the social sciences lost access to all of their Springer and Wiley-Blackwell titles.
- Small departments on campus were the most affected.
- If they had to do it all over again, they would have involved more people in the process.
The Big Deal Survey

- Carlson and Pope surveyed librarians to gather information regarding the impact Big Deals have had on libraries.
  - What libraries are subscribing to and why.
  - For non subscribers, why they are not subscribing or why they canceled.
  - How the Big Deal is affecting library budgets.
  - What alternatives have been identified and how well they are working.
  - 123 libraries submitted responses, 91 completed the survey in its entirety.
The Big Deal Survey

- 81.5% respondents were academic libraries, 8.4% each from medical and government libraries, 0.8% each from public and corporate libraries.
- 81.5% subscribed to a package.
- Cost was the primary reason to subscribe to a package.
- 88% canceled print subscriptions to help pay for the package.
- 96% swapped print titles for electronic.
- 88% said they would retain subscribed content, even with cancellation occurring at a later date.
- 12% said the bundle was about the same price as the print subscriptions.
- 49% said the cost for the package was actually more.
- One-third of the respondents paid less, but the majority found the cost of electronic to be the same or more than the print.
The Big Deal Survey

• 65% of those asked noted that the purchase of packages had not forced their library to limit or eliminate other purchases.
• 35% said that packages had forced them to restrict other purchases, mostly monographs.
• 77% felt forced to accept unneeded or unwanted content.
• Many who provided comments indicated that their budgets could not sustain drastic changes – static budget and increases in Big Deal prices.
The University of Kansas (KU)

- 28,000 students
- 2600 faculty
- 13 schools, 345 degree programs in 200 fields
- A member of the AAU
- 2nd in the nation for faculty Fulbright Scholars
Let’s go around and share a little about your institutions’ experience with Big Deal analysis, particularly. What have you done, or want to do, or are you being asked to do. What questions do you have, what do you want to learn from others’ experiences or what we’ve shared so far?

- What are your Big Deal experiences, burning questions?
About KU

- Particularly strong in special education, city management, speech-language pathology, rural medicine, clinical child psychology, nursing, occupational therapy, and social welfare.
- Nine core service laboratories for biomedical research, molecular structures, technology commercialization, and oil recovery.
- 17 research centers and institutes, including assessment, biodiversity, bioengineering, remote sensing, learning, humanities, biosciences, information and telecommunication, policy, life span, and transportation.
- Home of the Kansas Geological Survey and the Kansas Biological Survey.
We were lumped together with administrative and operations units on campus like student housing, human relations, and grounds maintenance. Huron had never worked with an academic library before. One of the first things Huron asked us – had we considered breaking out of the Big Deal.

Within a few weeks prior to meeting with the Huron consultant, there had been a number of high profile articles published in the Chronicle of Higher Education about schools who were busting the Big Deal or considering to bust the big deal. They been doing their reading.

We had recently reviewed our big deal with Springer, so we had the data that Angie had collected to help with our decision to renew to show the consultant. Collecting this data on a regular basis and having it readily available was very helpful.

They also suggested we implement DDA, which we had done in the previous year.
Assessment at KU

- Faculty and Graduate Student Survey, E-Book Survey & LibQual
  - Researchers at KU view collections as the most important resource or service offered by the Libraries.
  - Online scholarly databases and electronic journals are considered the most important resource for finding information, eclipsing general web search engines.
  - 61% of the respondents to the e-book survey prefer print books.
We started with three disciplines in the sciences. We limited the study to a random sample of books and journal articles. We checked to see if we provided access. Print or electronic. Was the article from a journal that is part of a journal package or an aggregator and the publication date? What are the most important or highly cited publishers in each field?

We expanded the study to include three disciplines in the social sciences and humanities. And collected the same data.

Currently, we are working on a project with a random sample of grant recipients and we have expanded the data collection to include journal list prices and availability of open access.
BREAK

• UP NEXT: Behind the Scenes, E-resources Assessment Best Practices
Shown you what others are doing related specifically to Big Deals, and we’ll shift now the realm of how those numbers get crunched. We’ll look at different kinds of evaluation metrics and the standards and tools to assist in gathering and managing that data (from basic spreadsheets to broad overview of third party systems). Then I highlight some particular pitfalls, considerations, and important calculations you’ll want to bear in mind in the process of crunching and analyzing your data. Then we’ll explore some best practices in visualization and what tools offer in this regard.
The first step is deciding among a myriad of options, which data points are important for your decision makers. **Emery & Stone’s TERMS project** does an excellent job of gathering best practice in this regard. Their wiki project gathered info from practitioners in the field on a variety of issues in the lifecycle of e-resources and was recently published into a Library Technology Report. Their chapter on **Ongoing Evaluation and Access** provides and number of key considerations for areas that impact usage metrics, but do so from the perspective of the workflow and an overall approach to e-resources evaluation. Some of the recommendations they gathered from practitioners, in addition to the standard data metrics, include tracking emails of providers announced downtimes, troubleshooting incident logs, and other relevant correspondence; and to include these in a dossier by vendor.

Another useful Library Technology Report by Jill Grogg and Rachel Fleming-May dives a little deeper into the pros and cons of various usage metrics, including citation analysis (ISI and Eigenfactor), and e-resource usage data both COUNTER and beyond. Project MESUR is mentioned in this report. That investigation looks at a variety of activity around usage to paint a more detailed picture of the people involved (“agent” authors, users, institutions), the document types involved (more specific than journal and article, to conference proceedings, etc), as well as use and citation and other metrics (“context”).
There are also useful sections alternative metrics, usability and user-surveys.

Whether or not you use all or some on these data will depend of course on your staffing resources, tools and technology support. For our purposes, and especially when we get to hands on activities, our focus for this workshop will be on gathering, managing, and creating tools for evaluating COUNTER usage data.
COUNTER is one of the most established and broadly implemented standards for reporting and recording online usage data. From its first release in 2002 to its very recent 4th Release, it continues to be very adaptable to changes in the information landscape while not disturbing the necessary consistency to avoid apples to oranges comparisons. It’s difficult to think of COUNTER usage data without an understanding of the growing trend toward open access and article level usage data, or to the critical role the SUSHI protocol plays in the gathering of this data.

In the simplest introduction to these standards, COUNTER is standard for reporting usage of larger structures of content: journal, databases, e-books, and now multi-media, while PIRUS aims to report more granular, article level usage stats. Both are standards for how the data is counted, the terms used to reflects those counts, how they are organized into reports, and the file format in which those reports are provided. SUSHI is does not count or consolidating that usage, rather its sole purpose to automate time consuming intermediate step of requesting and receiving those standardized usage reports from multiple providers. It is a web-based protocol that cannot stand alone; it requires additional systems on both the providing and receiving end to be able to accept its automated requests and deliveries of data.

Before collection decision makers can make any kind of effective use this standardized data,
it first requires consolidating, normalize, and combine this with other data elements (primarily cost), and if possible to produce effective visual representations of the data at a glance.

We’ll review COUNTER and what’s new with COUNTER Release 4, discuss some important workflow considerations for scheduling and gathering data and administrative metadata, and finally take a look at some of the systems currently in place to help consolidate and visualize this data for decision-making.
Definitions and types of report available in COUNTER can be overwhelming, and we have not yet begun to ingest all the types available to us, nor investigate yet the kinds of article level stats are available through PIRUS standard.

At KU we prioritize COUNTER compliant usage data, for ongoing paid resources, and gather this data every 6 months. Other non-counter data and schedules for gathering it are done either on a project basis or by special request.

We keep a wiki with the basic information and outline the most commonly collected report types -- those for databases, e-journals, and e-books; as well as ways to COUNTER-rize non-COUNTER compliant data. These table show how we have attempted to crosswalk the terms we’ve seen from non-COUNTER compliant vendors.

Neither of these, however have been updated yet to address COUNTER Release 4.

Turnaways and access denied, in particular, you want to make sure you understand whether this is a denial due to non-licensed content, or because of exceeded user limits. These two types are delineated to in the COUNTER 4 Release.
A good overview of the big changes in the recent COUNTER 4 release can be found in the introduction on the Project Counter website (also in Works Cited) and of course there is loads of data available and well organized in the full report that is available online as well. I’ve highlighted some key facts here:

BR6 and DB3 which reported searches and session by “service” are removed and to some extent replaced by a new Platform Report for multimedia. Session counts are no longer reported in DB1 – sessions are also no longer required by ARL reporting.

There are some new definitions included in this release that attempt to address granularity of user activity with the platform or items within – just viewing, clicking, or the usual downloading. This may begin to address the concerns a couple of studies I’ll mention a bit later that discuss how platforms may inflated HTML and PDF uses (Davis & Price, 2006; McGrath, 2012).

Other new reports – the Platform Report 1 that I mentioned above is (not a direct replacement of BR6 and DB3) actually a report for multi-media content. There is also a requirement that Gold OA usage be provided in a separate report from JR1. As well as additional optional reports that address individual title level usage or stats by mobile devices.
Finally, some useful **new requirements** in this release are that DOI be included for books and journals and requirement for data to be provided not only as a file that can be easily exported in Excel, **but also in XML (which is what SUSHI protocol uses)**. This is in an effort to ease and increase SUSHI compliance that was a requirement being COUNTER 3 compliant.
Many studies have outlined the limitations of what COUNTER data tells about the usage of electronic resources by our patrons, and many caution against the ideas of using only COUNTER data for budgetary decision making. I’d like to propose these cautions as things to keep in mind, and view with an eye towards possible solutions. Because despite these limitations, there are also reasons usage data can be very helpful in assessing collections and making cases in negotiating renewals.

Kinman’s study of 5 years of comparative COUNTER data offers a very good review of the literature outlining some of the things outside the scope of COUNTER usage. I’ve revised that list here a bit, to account for changes in COUNTER releases since this study was published – e.g. COUNTER now addressing federated searching and open access to some extent. But it remains unable to address these others important factors that would be best address by other evaluative methods.

Kinman’s study also shows factors that can inflate usage, such as the simple fact of a resource’s’ placement on the library A-Z page, as well as setting preferences of your link resolver and federated search and discovery system.
Using COUNTER with its intended scope in mind, there are some additional things to consider in the process of normalizing and consolidating data.

Title changes are addressed in COUNTER by recommending the usage be combined on the most current title and the previous title dropped from the list. However, we have found there is still a great deal of manual normalization taking place to establish usable data set of titles, especially when evaluating big deal packages.

As mentioned before COUNTER does require separate reporting for Federated Searches than Regular Searches, so you will want to make sure you are aware of these separate reporting entries when compiling. It is particular important caution to watch for, as most errors tend to come from strange ways the platforms are reporting various search data. Sometimes the issue of federated search isn’t from discovery systems, but from the way publisher platforms aggregate searches across their own products. ***This happened with Proquest who reported its D1 report of searches across subjects on its platform, and as a result inflated usage and made it particularly difficult to make a comparative report from prior years. We ended up using their non-COUNTER Database Activity report and attempted the formula described in the ERIL-L message above for database searches, but remain without a satisfactory way to report sessions.
A good usage analyst will find that an unusual pattern in vendor usage reporting when in comparing data across years may indicate errors or particulars of that vendor platform to take into consideration and make a note of when providing that usage for analysis. COUNTER addresses errors through a auditing process, after which identified corrections are to be made within 3 months. But direct feedback to vendors and listservs are a good way raise issues in way that may lead to them being addressed more quickly.

Probably the stickiest problem that you want to consider, especially when using COUNTER with your cost data, is the problem of how platforms effect the reporting of HTML and PDF usage.
ACTIVITY

• Academic OneFile vs. Academic Search Complete
• Which platform will have high HTML usage vs high PDF usage?
• Why?

• What about Big Dealers: Elsevier, Wiley, Springer?

Do a search on each of these platforms (limited to full text)
What patterns do you see here?
1. Abnormal network integrity of the inferior frontal cortex in women with anorexia nervosa
   Neuron Image Clinical, Volume 4, 2014, Pages 615-622
   Stephanie Kuhlmann, Kathrin E. Giel, Martin Teufel, Ansgar Theil, Stephan Ziepel, Hubert Freistl

2. Intranasal oxytocin attenuates attentional bias for eating and fat shape stimuli in patients with anorexia
   Psychoneuroendocrinology, Volume 44, June 2014, Pages 133-142
   Yoon-Ri Kim, Chan-Hyung Kim, Valentina Cardi, Jin-Sup Eom, Yoon Seong, Janet Treasure

3. Is weight gain really a catalyst for broader recovery?: The impact of weight gain on psychological symptoms in the treatment of adolescents with anorexia nervosa
   Behaviour Research and Therapy, Volume 56, May 2014, Pages 1-6
   Erin C. Accurso, Anna C. Ciao, Ellen E. Fitzsimmons-Craft, James D. Lock, Daniel J. Le Grange
HTML, PDF, Totals, and Adjustment Factors

“The function of HTML as a medium for browsing and PDF as a medium for printing was first rigorously documented in the SuperJournal project in the late 1990s…” (Eason et al., 2000, as cited by Davis & Price, 2006.)

Davis & Price cite the (Eason, et al) study that asserted the function of both HTML and PDF when it comes to understanding usage. Davis & Price’s 2006 study sought to show how different vendor platform effected the ratio of HTML to PDF downloads. This study offered possible solutions, and was particularly influential to both COUNTERs subsequent release changes, and in some cases caused publishers to adjust their platforms to address these problems.

COUNTER reports both PDF and HTML and add these in a TOTAL column. When comparing strict usage across platforms, you may wish to simply use the TOTAL downloads and account for value in both browsing and actual downloads in your decision-making. However, when budget issues are tight, it may be useful to dig into the specifics of these numbers and identify what kinds of adjustment factors you may want to consider.
These packages have similar numbers of titles in them and could be compared in this way, where you can see Elsevier is the most heavily used package, then Wiley, then Springer. This can be seen even without normalizing, by just using the TOTALs column. Or you could add a custom field to normalize the number downloads for 1 title, and you see the same pattern emerges.

This may lead you to decide for budget reasons which Big Deal to investigate further and dig into the specifics, in this case of the Springer deal. However, you may also notice the unusual pattern of Elsevier's HTML to PDF ratio compared to that of Springer and Wiley leads you to investigate Elsevier in more detail.

In either case, the next steps you would be combining these numbers with cost, and this is where additional adjustment factors will need to be considered.
As Lea mentioned, we had begun evaluating our large packages not long after SIUC shared their experiences of leaving the big deal. When University-wide Changing for Excellence audit determined we should look at big deal package for cost savings, we’d already completed a review of Springer package and were preparing for review of Wiley. Given more urgent budget issues across multiples campuses at the time our Elsevier contract was coming up for renewal, we took additional measures to consider our Elsevier package data more thoroughly.

Review bullets.

Note: COUNTER used titles as the title list, rather than a subscribed title list.
Note: As Lea mentioned, SIUC saw 0.9% in ILL transactions
For Springer & Wiley we ultimately determined that our consortia package deal increase over 5-years resulted in greater savings. You can see here the dramatic increase across 5 years for the most highly used titles (both at 100+ uses and 200+ plus uses) without the price increase cap that the Big Deal typically allows.

However, despite the numbers, a key argument against staying in the big deal is that they force you into a deal for the titles you want by making you pay for low value titles that you don’t want or use. We looked at that too.
In the case of Springer, we found this to be true for the most part. KU users only download (or used) just under half of the available titles in the package, and there were very few titles that had a lot of use. Meaning even if it had been affordable to break up this package, it would have resulted in dramatically less (and arguably still used) content. Since Springer was a relatively inexpensive package comparatively to the overall budget. It was determined primarily not against use, but against cost projections.

You can see that Wiley is an even stronger case both financial (prev slide) and considering used titles.
BREAK

- UP NEXT: Vendor Solutions for Usage Consolidation, Visualization, Hands on work
Understanding these quirks about your COUNTER data are important whether you are manually managing your stats or are using an intermediary (or subscription service providers) who offer usage management services. You’ll want to make sure you understand which data points are ingested in these systems, so you know how the analysis that is generated was derived.

Subscription vendors EBSCO, Harrassowitz and Swets provide usage consolidation services for their customers, offering the ability to integrate cost data without having to interoperate with your ILS. However, to be of greatest benefit this would require your library to have all its resources with a single vendor. Some do load data for any content platform regardless of subscription (often for an additional fee) and provide spreadsheet capable tools to manually enter cost data for non-subscribed titles. Each of these is COUNTER and SUSHI compliant, supports COUNTER-izing of non-COUNTER data, and tracks your administrative details (via SUSHI compliance).

ERM integration tools, like Serials Solutions COUNTER which is integrating now with their new Intota Assessment product uses SUSHI for compliant vendor but supplements with their own Data Retrieval Service for the same purpose. Serials Solutions, unlike the systems above is strictly a usage consolidation service, and does not include cost analysis without connecting/uploading that data from your other systems. ERM systems vary in
their ability to consolidate, manage, and report on usage data. But their biggest problem remains in the as well with their clunky interoperability with the ILS.

These tools were necessary for their time, as few ILS had anything close to this functionality built in. New ILS systems or as ExLibris terms is Universal Resource Management systems incorporate assessment and resources management in a single system. Both ExLibris’ Alma and Intota intentionally began their iterative development processes for their new ILS systems with Assessment as the driving focus and building from there. These tools promise to consolidate and manage all types and formats of content usage and budget statistics with visualization and management tools built in. But being so new market, much remains to be seen.

The persistent challenge with all of these is the additional costs each incurs. KU went with Serials Solution COUNTER in its early release, rather than the subscription providers because our subscriptions are dispersed across multiple providers. We found the effort to load and correct load errors in the early version of COUNTER as time consuming as loading them manually to our webpage, so did not renew. We are currently reviewing the ILS migration environment but do not have the staff or fiscal resources to actively engage in ILS migration process any time soon. Like many of you, assessment is a greater focus of our library strategic plan and so we have invested in a overall Assessment system from SpringShare that may provide some alternative interim solutions. This too, remains to be seen.

Even for those who may find the extra costs of these add on system services to be affordable investment, the big lesson to take away is that none of these, or any system is your Savior. You will still need staff dedicated to quality control and who have an understanding of what goes into the usage data points in order to identify where problems may arise before it gets consolidated and used for analysis and decision making. My personal assessment of the environment since Grogg & Fleming-May’s 2010 assessment is that it is still a waiting game.
**THOSE WHO HAVE an ILS or ERM integrated usage solution in place, SHARE SOME OF THEIR BEST FEATURES, or their DRAWBACKS.**
Besides the potential that we’ve not yet explored in LibAnalytics, KU does not have a integrated library system, ERM, or 3rd party system that supports our usage consolidation and management, and visualization. We have 1.5 FTE devoted to gathering, displaying, and combining data into analysis projects for our library. And so we find ourselves coming back to basics. Someone in our division leadership team was updating the group on our new LibAnalytics tools and the virtues of its spreadsheet app, one of our tech services librarians had this brilliant piece of advice.

Many spreadsheet programs like Excel and Google Spreadsheet have visual tools built in. Making it very simple to capture quick data. The charts created in first Springer Wiley and Elsevier platform and PDF/HTML comparisons, were done very easily using Excel and its Recommend Charts function.

To say just a little bit about visualization, I’d point to an article by (Morton-Owens & Hanson) on creating a dashboard of library statistics. These authors outline the technical set up required for a statistics dashboard, and their tips for how dashboards are used would be useful in evaluating third party consolidation systems mentioned earlier. The article also offers some interesting visual examples and useful combinations of metrics. But some particular best practices in visual design principles they highlight include, knowing your audience and the level of data they need to see; consider color associations
(like red for stop, or urgent), and they recommend using duller, less saturated colors. They also note that it is generally better to use bar charts than pie charts – the latter which are difficult to judge what is being represented by each slice – and the importance of benchmarking, especially when using visualizations in a dashboard for decision-making.

Chose 1 of 2 (or if time both) ACTIVITY:

1) play around with Recommended Charts Function to create visualizations. See if these recommendations make sense given what I’ve just shared. You also might try inserting a chart using Word or Power Point (will prompt you to enter necessary date in appropriate fields and labels)

OR

2) BIG DEAL analysis normalization, formulas, projections (NEXT SLIDE)
In this activity, we won’t be presenting visualization suitable for dashboards, but rather how to get some of the necessary calculations in the raw data and to present a bit more detailed summary of that data than what is in a graphical representation.

Open the file provide to you (by email or share drive)

This is a generic version of a very small big deal package with a total of 65 titles for a cost of $155794. This has a combined usage list for the past 2 years and the current 4 months of this year. With blank columns left for us to figure out some normalizing numbers for analysis. (NEXT SLIDE)
Q: So, the first step to normalizing is to identify what in the spreadsheet might still need to be consolidated due to title changes or package title bundles.
A: Journal O2 Supplement with $0 in the Content Fee column needs to be consolidated with its bundled main title. Here I use a formula in Excel to add it for me, so I can see that. Then I’d edit the Title to Journal O + Suppl and delete the separate line.
Next, let’s calculate Annualize Usage and Cost per use. First by creating a combined use total. 
Q: How would we do that in Excel?
...a combined use total.
A: Use the sum function, which creates a more complicated formula automatically
A: Or, manually create sum formula of the cells.
Now, the reason we want an annualized total is so that we can normalize use to a single year, because of cost is a single year. To do this we need to:

Q: make our use calculation all 1 year, not 2 years and 4 months, by annualizing what 4 months worth of usage might look like across 12 months.
A: To do this, you take your combined use divided by 2 years and 4 months, or 28, and then multiply by 12.

**Keep in mind, this does inflates the usage somewhat. There might be a more sophisticated formula for this calculation back when you pull the usage by making estimates by each month based on past usage. But we consider this “good enough”**

Q: Is everyone comfortable with how to then get the annualized cost per use?
A: just divide the Content Fee Column by the Annualized usage total.
Let’s review our data here using the sorting and filters to see what makes most sense for to consider as a big deal breaking point. Is it uses of 100 and 200? Or is it cost per use? These determination are closely tied to your ILL estimates. So, for example if you’re deciding to use a CPU figure, you’ll want to know what the copyright fees to ILL that would be. In our sample case, we’re saying it’s $45, so you’d want to break the deal at a CPU that are greater than $45

In order to calculate the ILL cost, first create a total uses calculation against each breaking point.

Q: What are the total annualized uses of the top 100 journals, 200 journals, or journal with <$45 CPU?
A: These again use sum formulas, and I’ve already counted the titles as a place marker where those totals can go. (SHOW IN EXCEL)

Next, calculate the total annualized use, as well as the count of titles (see EXCEL blue) for the remaining – what you would no longer access in the deal (in EXCEL in BLUE) These are the numbers that will be used to create your ILL estimate calculation.
Here’s what that calculation looks like. For each of the remaining titles it is possible that 5 uses of each of those will be free. So first you want to multiply the remaining # of titles by 5. Then that total by staff cost $7. You will eventually subtract this from the actual uses of those remaining titles since of all the uses, 5 in each journal are free.

So in excel, we can put that here. All of this then can feed into the Summary tab.
See if you can get your formulas in your spreadsheet to match my numbers.

SUMMARY: Breaking the big deal at 200+ uses yields the greatest savings across 5 years. Breaking the big deal at 100+ uses with ILL at 1% would yield greater savings across 4 years, but not 5. And breaking the deal at 100+ uses with 10% ILL would not result in savings except in the first 2 years.
Thank You!

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