7-1-2015

Developing a Data Narrative: Analyzing Trends in an Academic Interlibrary Loan Department

Heather Grevatt
Boise State University

Developing a Data Narrative: Analyzing Trends in an Academic Interlibrary Loan Department

Heather Grevatt
Boise State University

Abstract

Between 2010 and 2015 interlibrary loan request rates at Albertsons Library at Boise State University were observed to be in decline. This study details the efforts to explore this trend and determine a cause using existing data available through the OCLC Atlas ILLiad Web Reports interface. A simple, but effective method to analyze these substantial reports is presented and practical examples of analysis conducted at Albertsons Library are discussed. By looking at factors such as usage patterns, new user registrations, and cancelation language, the decrease in borrowing and lending requests was confirmed and attributed primarily to decreases in graduate student ILLiad registrations and a lending ebook deflection implemented in 2015. Additional, focused qualitative assessment and updates to user interfaces were recommended as a result of the study.

Keywords: data analysis, ILLiad, interlibrary loan departments, Web Reports

In this data-driven age, library managers expect decisions to be made based on proof that this is the best way to meet our patrons' needs. However, due to shrinking staffs and ever more complicated licenses (Birch, Goldner, and Parson, 2013) many Interlibrary Loan (ILL) departments do not have the resources to conduct extensive research and instead must rely on the data available through their resource sharing interface. This data, though thorough, often seems to tell only partial truths, leading to inconsistent patterns or perplexing outliers. Even within an academic setting, staff may have limited training in data analysis and be intimidated or confused by the process (Greenwalt, 2013). During the Fall 2015 semester, supervisors in the Interlibrary Loan department of Boise State University, Albertsons Library anecdotally noticed a decline in ILL requests. Since patron usage is at the heart of any library service, staff were asked to explore this trend as time allowed and see if they could explain what was happening using the available data. Utilizing Web Reports available through the OCLC Atlas ILLiad system, staff initially encountered an overwhelming amount of data leading to disjointed analysis and incorrect hypotheses. Over time, it was determined that rather than imposing preconceived notions about the cause of the decline onto the data and experiencing frustration when the proposed outcome did not appear, it would be more effective to let the data create its own narrative. Instead of asking specific questions of the data, such as "are requests declining because of this unique cause," only the general question, "why are requests declining," was considered. A core series of reports was run and each report or report category was analyzed independently to establish local trends. Trends across reports were subsequently compared. This allowed correlations to appear naturally and isolated key areas of concern. The available data ultimately confirmed that requests were declining while telling staff which patrons were causing the decline and when it first appeared. It showed that despite the decreases, turnaround times were stable and fill rates had greatly improved. It demonstrated that customers were in fact requesting the same number of items, but were not registering for new accounts. What follows is an overview of the process and findings of this method as used by Albertsons Library with the hope that other institutions may be able to similarly explain their own localized trends. Using only the most basic elements of statistical analysis, Microsoft Excel, and the raw data available to nearly any Interlibrary Loan department, staff at Albertsons Library were able to draw meaning from disparate data points. As a result, the available data was used to inform future assessments, identify elements of the ILL process preventing effective assessment, and suggest methods of improvement.

Literature Review

Interlibrary Loan is sometimes lamented as an under-published area of library services, despite its important function (Posner, 2014). Perhaps when compared to the entire expanse of library literature this is true, but a wealth of information is still available. Within statistical analysis, one area that has been especially prominent is the effect of

electronic serials cancelations on ILL workflow (Calvert, Fleming, and Hill, 2013; Knowlton, Kristanciuk, and Jabaily, 2015). Though researchers consistently concluded that canceling journal packages does not negatively impact ILL, (Calvert et al., 2013 p.186; Knowlton et al., 2015, p.11) it is an important topic to revisit as reliance on electronic resources continues to grow. Where these studies used a combination of existing and study-generated data, Murphy and Greenwood (2009) described their efforts to use only available data to understand increases in cancellations due to the item being held locally. They identified that graduate students comprised half of all items requested, but also accounted for half of all cancelations (p.369). Their thorough analysis of multiple factors, including types of requests and department affiliation, resulted in a recommendation to increase graduate student library instruction as well as the limited implementation of graduate student document delivery services. Their study was also a prerequisite for a usability study of the ILL department (p.379) demonstrating the value of available data analysis as a precursor to additional assessment. In a similar fashion, Kress, Del Bosque, and Ipri (2011) utilized the Requests Finished and Canceled, report to identify locally held items requested through ILL. These records were used to conduct cognitive walkthrough and usability testing of the University of Nevada, Las Vegas (UNLV) website (p.153-154). Using interlibrary loan data, "it was possible to analyze actual citations that users were unable to find" (p.167). This method allowed researchers to determine an "ideal search path" to locate the locally held items and examine all areas where misdirection could occur. Some adjustments to the library user-interface were made as a result of the study, but researchers indicated that some challenges would likely only be overcome with new discovery platforms and that future research was needed.

In contrast to the sociological method employed by Kress et al. (2011), Ahmadi, Dileepan, and Murgai (2013) sought to develop a mathematical model to forecast demand for ILL services. Using a centered moving average and regression analysis, the researchers consistently predicted demand to within a few hundred transactions (p.126). As ILL services tend to be seasonal, the ability to predict volume for any given month could dramatically affect staffing or the creation of new projects. Shrauger and Doston (2010) also discuss using ILL statistics to inform new project development, however with a focus on interdepartmental coordination. At the University of Central Florida (UCF), analysis of ILL requests for Special Collections materials was used to implement a scan on demand program. The project improved ILL fill rates for Special Collections items and assisted in the digitization of collections for which patron interest was already established. Indeed, "[The digitized collection] ranks in the top third of usage statistics for all of the PALMM collections" (p. 146), demonstrating that ILL requests can be an adequate predictor of patron demand when analyzing unique collections for digitization. In 2016 Shrauger, Calabrese, and Spyers-Duran II revisited interdepartmental collaborations at UCF, including a variety of ILL informed projects, such as purchasing browsing materials based on ILL requests. Similar to the demand driven nature of the scan on demand project, researchers noted, "This has allowed us to strengthen the Browsing Collection with books that patrons really want to check out and read" (p. 19).

As the observations conducted at Albertsons Library attempted to explain localized trends, a review of the literature on current industry trends also proved valuable. Kappus (2009) combined data analysis and trend analysis in an attempt to explain dramatically increased borrowing request rates at Gonzaga University. A review of internal ILL data, policies at peer institutions, and a survey of affinity group libraries led the department to adjust database result interfaces. Staff also created an awareness campaign to educate users about the costs associated with ILL, with the intention of decreasing unclaimed loans. At Northwestern University, Munson and Savage (2013) looked specifically at the incidence of textbook requests. Using a combined approach, they sought to determine why students use ILL to request textbooks and whether the Northwestern ILL system could satisfy patrons in this regard. The researchers examined a variety of considerations, including turnaround times and fill rates, and concluded that interlibrary loan could meet student expectations for textbook requests (p. 199).

Outside of institutionally specific trends, one of the most examined areas of interlibrary loan is whether rates of borrowing and lending are increasing or decreasing. Using 12 years of literature reviews created for *Interlending & Document Supply*, McGrath (2015) determined rates are decreasing globally, except in the United States (p. 75). There has been some belief that the proliferation of open access materials will decrease ILL requests: however, Baich (2015) observed that despite stable overall borrowing rates, requests at Indiana University-Purdue University Indianapolis for openly accessible materials increased during the study period, likely as a result of discoverability issues. The Association of Southeastern Research Libraries, as studied by Atkins, Greenwood, and Whaley (2014) showed a slight, 2% decrease in the average number of total requests between 2010 and 2013 (p. 19). In speaking with "thought leaders in resource sharing" (p. 12) Birch et al. (2013) discovered that some institutions were experiencing increases in requests while others experienced decreases. Such inconsistencies seem to underscore the assertion of Little and Leon (2015), "it is vitally important that resource-sharing operations gather better, more comprehensive data to

understand the breadth of satisfaction and where patrons are dissatisfied" (p. 34). Their comparative study demonstrated that no matter what the current trends appear to say about usage, patrons find significant value in interlibrary loan services.

Institutional Profile

Albertsons Library serves the Boise State University community of 22,113 students. The University offers 100 graduate degrees and certificates and 89 undergraduate degrees and certificates. The top three undergraduate enrollments are for nursing, psychology, and communication. The top three graduate enrollments are for educational technology, business administration, and social work (Boise State University, 2016). Accounting for all classifications of faculty, staff, and student workers, the library maintains the equivalent of approximately 71 FTE. Ordering, Interlibrary Loan, and Gifts employs 5 FTE and 2-4 student assistants. It is housed with Receiving and Collections, and Serials, which report to the Head of Acquisitions and Collections. While some functions, such as checking out materials, are performed in conjunction with the Access Services department, the units are separate entities. Albertsons Library Interlibrary Loan utilizes OCLC ILLiad for the majority of resource sharing functions and does not participate in RapidILL or DOCLINE. Interlibrary Loan provides materials that are not available in the Albertsons Library collection either because they are not held, are checked out, or are missing. The ILL department is also responsible for Document Delivery services. They do not provide textbooks, defined as any book listed as required reading for a course through the campus bookstore. Services are offered to all students, faculty, staff, and emeriti at no cost to the patron.

Methodology

Data was collected between October 2015 and March 2016 using OCLC Atlas Systems Web Reports. During this period, the library employed both ILLiad 8.5 and 8.6. Reports were run for 2010 through 2015 and analyzed on a calendar year basis. For all data sets, reports were run in 1 year intervals, exported individually to Microsoft Excel, and subsequently combined as necessary for analysis. A total of 14 different reports were used over the course of the study. The analysis used was dependent on the data set, but most often included observation of the distribution, for instance the average, or simple computations, such as the percentage change or percentage of total. All calculations were performed using Microsoft Excel functions.

Identifying the Problem

Though Greenwalt (2013) rightly argues that library metrics must move beyond the tradition of circulation statistics to gain a fuller picture of patron needs and behaviors, it is equally true that these numbers should not be ignored entirely as they are often the first area in which a trend is noticed. It can be argued that the ILLiad equivalent of circulation or usage statistics are the Borrowing Requests Received by Day and the Lending Requests Received by Day reports. A good way to restate the value of these reports is to say that they show whether someone, be they patron or fellow institution, is actually using the ILL department's services. When these reports are observed across a timespan basic usage trends emerge. This was the first step in identifying the problem occurring at Albertsons Library. As Table 1 and Table 2 show, during the period studied, the general trend was a decline across borrowing and lending.

TABLE 1 Borrowing Requests Received by Day

	Transaction Type		
	Articles	Loans	Total
2010	7219	11559	18778
2011	6633	11278	17911
2012	7064	11284	18348
2013	6554	9639	16193
2014	5832	8121	13953
2015	5022	7394	12416

TABLE 2 Lending Requests Received by Day

| | Transaction Type | | |
	Articles	Loans	Total
2010	5446	5248	10694
2011	5356	5149	10505
2012	5232	5312	10544
2013	5230	4969	10199
2014	5427	4538	9965
2015	4859	3180	8039

In 2010, Albertsons Library received a total of 29,472 borrowing and lending requests. In 2015 the library received a total of 20,455 requests, translating to a decrease of 30%. Examined independently to isolate where the decrease was greatest, lending was observed to have decreased by 25% over the 6 year span, but borrowing had decreased by an astounding 34%. Of course these reports provide only the number of requests per date with no accompanying information, such as requester status, but they were necessary to confirm the previously mentioned anecdotal perceptions.

An interesting finding was that after an inexplicably large decline, Document Delivery services remained relatively stable from 2012 through 2015, fluctuating between 4% and 7% of all borrowing requests (see Table 3). Albertsons Library does not cancel requests for locally held materials. Instead these requests are manually rerouted to document delivery and processed. Although Access Services is generally responsible for paging available materials for holds, if a patron requests a locally held returnable through ILL, interlibrary loan staff process the hold rather than referring the student to Access Services. Most requests for locally held print articles or book chapters are scanned and delivered electronically. One might expect document delivery rates to decline consistently with borrowing rates, however there is likely a threshold correlated to patron discoverability as well as users who employ the service in order to avoid having to manually scan print materials. If the rates were significantly increasing as a proportion of borrowing requests additional assessment would be needed to identify whether the increase was simply the result of increased interest in the service or reflected a serious access or discoverability issue.

TABLE 3 Document Delivery Requests Received by Day

| | Transaction Type | | | As a Percentage of |
	Articles	Loans	Total	Borrowing Requests
2010	851	804	1655	9%
2011	659	962	1621	9%
2012	660	99	759	4%
2013	851	68	919	6%
2014	765	180	945	7%
2015	601	213	814	7%

It could not be ascertained without some form of qualitative assessment, but one consideration to explain the decline in borrowing requests was user dissatisfaction with the service, particularly with turnaround times and fill rates. Perhaps users felt that they could not effectively obtain items or could not obtain them in a timely manner. Although not definitive, the data generally argued against this. Turnaround times remained relatively stable over the study period, averaging less than 3 days for articles and less than 10 days for loans. Unfortunately, the rate for loans appears to have plateaued as the Average Time from Sent to Received, that is from when the lending library ships the item to when it arrives at Albertsons Library, has never fallen below 9 days, suggesting that this is as fast as can reasonably

be expected for mailing unless a more expedient, and therefore costly, method were used. When compared with Munson's (2013) survey results, in which students expected to receive loans within 3 to 6 days, and in the age of frequently available 2-day shipping, a 10 day turnaround seems high, however this addresses the issue of shipping only. If one considers that the standard available response time for most libraries is still 4 days, it is possible that 3 libraries just considering the request could take 10 days. This suggests that the 10 day average turnaround is reasonable, if not ideal. When possible, it could be helpful to encourage patrons to mitigate turnaround times, for instance, by requesting book chapters instead of loans when only part of the text is needed. There has also been internal discussion of requiring an entry for the "need by" field, which is currently optional and defaults to 8 weeks from the request date. If staff were better informed of patron needs they could work to mediate the turnaround with methods such as selecting only 2-day response libraries or selecting a geographically closer, albeit non-reciprocal institution. In light of loan turnaround limitations it may be beneficial to promote better patron education about expected arrival times and provide better communication in cases where the loan is taking an unexpectedly long time. The fill rates for borrowing steadily increased to an impressive 94% fill rate for articles and an 87% fill rate for loans with a consistent "No supplier found" rate of 5-6%. The Borrowing Fill Rate Statistics and Turnaround Time reports do not demonstrate whether a sub-population within the transactions, such as faculty members or members of a specific college, are disproportionately experiencing cancelations or extended wait times, but it could be argued that in most cases Albertsons Library Interlibrary Loan satisfactorily and efficiently fills borrowing requests.

Identifying Patron Behaviors

One of the most widely explored concepts in interlibrary loan, and perhaps all of librarianship, is why patrons behave the way that they do. Knowlton et al. (2015), Kress et al. (2011), and Murphy and Greenwood (2009) are all excellent examples of the need to understand how and why patrons interact with interlibrary loan. In the case of Albertsons Library, another consideration in the decline of borrowing requests was whether the same number of users were requesting fewer materials. The Customers Cleared report was run to observe the number of new or updated account registrations each year. The results, as seen in Figure 1, showed that in fact far fewer customers were being cleared. Between 2010 and 2015 the total customers cleared decreased by 61% and new graduate students cleared decreased by a dramatic 67%.

Customers Cleared by Status
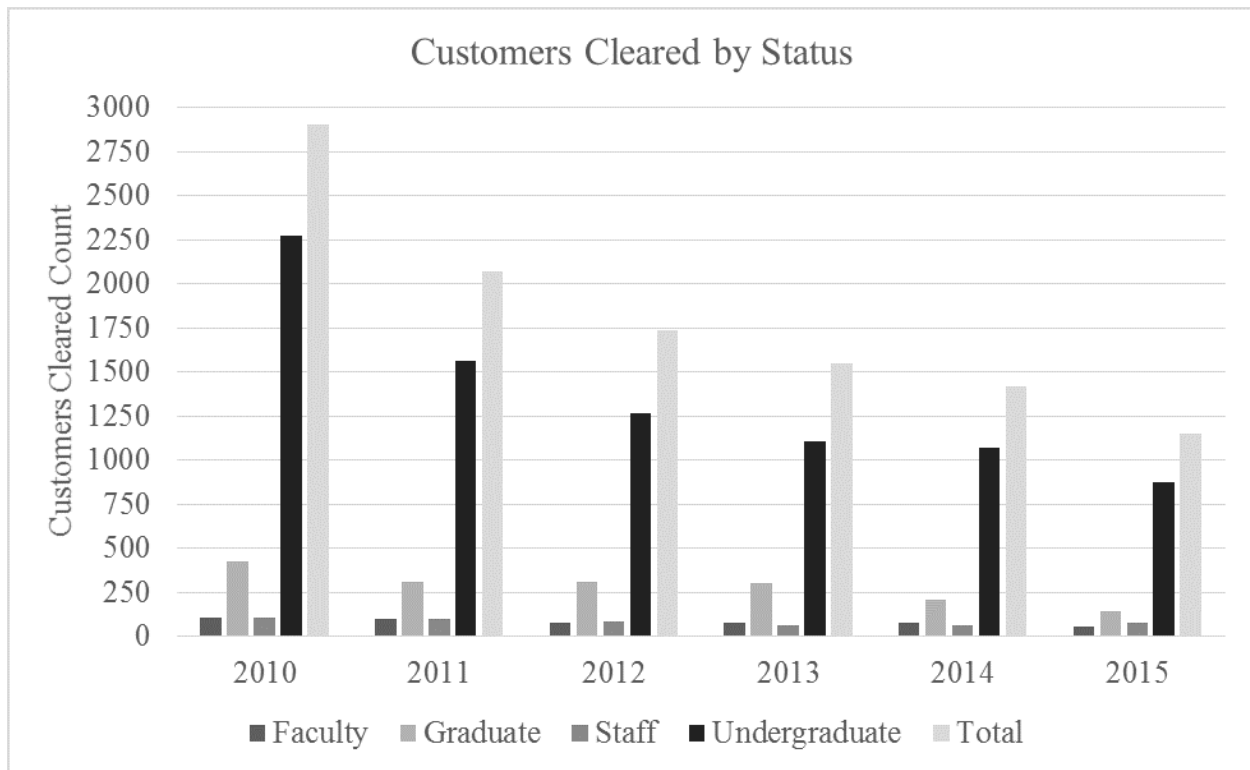
To support these findings, the Requests by Username report was run for 2010 and 2015 only, in order to conduct a brief comparison of per person borrowing rates and confirm that the problem really was fewer overall users. The results, seen in Table 4, were quite surprising and confirmed that a lack of new users was the likely cause of the borrowing decline. Despite a difference of more than 6,000 transactions between the two years, the rates at which patrons borrowed, categorized into 1-10 items, 11-50, 51-100, and 100 or more, differed by less than two percentage points per category. Clearly patron borrowing behavior had not significantly changed over time, but something was causing patrons, principally graduate students, to stop signing up for access to interlibrary loan services.

TABLE 4 Requests by Username

	Borrowing Request Count Per User			
	1-10	11-50	51-100	100+
2010	2828	410	21	8
*% of Total**	87%	13%	0.64%	0.24%
2015	1973	251	16	6
% of Total	88%	11%	0.71%	0.28%

* Percentage of total users

One related issue raised by Knowlton et al. (2015) was the rate at which patrons viewed non-held materials and did not complete the ILL process. Though Albertsons Library utilizes Lightweight Directory Access Protocol (LDAP) to allow single sign-on, this does not migrate patron information such as user address. This functionality is becoming more common (Halling and Hahn, 2013), but it is not currently being considered by Albertsons Library. This means that while patrons' usernames default to their universal logon, they must complete the ILLiad registration process before their first request. It is possible that students especially, were deterred from completing a request because they were confused by the process or as Knowlton et al. described, "the perceived urgency of the research" (p. 11) overwhelmed their need for the material. Better integrated registration does not prevent the need to interact with ILLiad as a separate user interface, but if the initial process were more streamlined students might be more inclined to participate. Comparing peer institution registration and clearance policies could prove a valuable next step in determining if the process should be altered or upgraded.

Regrettably, one of the most powerful pieces of data in this discussion, the departments of new registrants, was essentially lost due to internal settings. The importance of formatting policies and interfaces for easy and effective assessment will be discussed further, but its relevance in this area was particularly prominent. During registration, new users are prompted to enter an address into a free-text field and select their college from a drop-down menu. The address instructions advise faculty and staff to enter their department and mail stop, whereas students are expected to enter their mailing address. The drop-down menu for College, which is not a required field, includes the option of *other* and defaults to *other* if no selection is made. It was determined through interviews with staff that a free-text option previously appeared when *other* was selected, allowing some users to enter a unique answer as recently as 2014. Furthermore, in 2015 a college experienced a restructuring and name change that is not yet reflected by the drop-down options. These issues combined to create a host of data points that were not effective for analysis. Particularly troubling was the excessively high use of *other*. As seen in Table 5, the use of *other* as a percentage of all selections nearly doubled between 2010 and 2015. Since users rarely return to their accounts to updates these selections, they will likely remain categorized as *other* for the duration of their time at the University. This prevents staff from effectively tracking departmental borrowing rates over time. As ILL rates can be a powerful tool for collection development (Shrauger et al., 2016), this problem was highly prioritized in the resulting study recommendations.

TABLE 5 Customers Cleared by College

	2010	% of Total*	2011	% of Total	2012	% of Total	2013	% of Total	2014	% of Total	2015	% of Total
	Customers Cleared Count											
Arts and Sciences	469	16.27%	393	19.12%	299	17.34%	287	18.65%	155	10.99%	137	11.98%
Business and Economics	293	10.16%	148	7.20%	147	8.53%	86	5.59%	73	5.18%	48	4.20%
Education	268	9.30%	179	8.71%	156	9.05%	146	9.49%	93	6.60%	43	3.76%
Engineering	186	6.45%	120	5.84%	121	7.02%	133	8.64%	96	6.81%	77	6.73%
Health Sciences	297	10.30%	210	10.22%	188	10.90%	178	11.57%	158	11.21%	83	7.26%
Social Sciences & Public Affairs	422	14.64%	364	17.71%	276	16.01%	246	15.98%	159	11.28%	75	6.56%
Library	66	2.29%	40	1.95%	43	2.49%	20	1.30%	11	0.78%	9	0.79%
Other	879	30.49%	595	28.95%	490	28.42%	439	28.53%	663	47.02%	672	58.74%
Unique Identifier	3	0.10%	6	0.29%	4	0.23%	4	0.26%	2	0.14%	0	0.00%

* Percentage of Total Customer Cleared

Tracking Policy and Collection Changes

Though not as substantial as the borrowing decrease, the decline in lending rates was also significant. Much has been said about the relationship between interlibrary loan and changes to library policies or material holdings. This includes such issues as the cancelation of journals (Calvert et al., 2013), the negotiation of new electronic licenses (Carrico and Smalldon, 2004), or even the management of legacy print collections (Massie, 2012). While it is important to consider potential results prior to making changes is equally important to use adequate assessment to monitor the consequences of changes after they are implemented. As Frederiksen, Cummings, Cummings, and Carroll (2011) describe, ebooks are still an area of limitless contention for ILL. Complicated licensing and technology issues restrict sharing ebooks between libraries and many, Albertsons Library among them, have elected to avoid this area entirely by canceling all lending requests for electronically held returnables. In January 2015, staff reported that the rate of lending requests for ebooks was continually rising to the point of affecting workflow. A consensus was reached and a deflection put in place to automatically prevent materials cataloged as ebooks from reaching the Awaiting Lending Request Processing queue. In an effort to understand the decrease in lending requests received in 2015, the Lending Requests Filled and Unfilled report was reviewed. This report includes a breakdown of causes for cancelation. Departmental policy was to cancel ebooks using "Not licensed to fill," though this reason could also be used for a limited number of journal and media items with restricted licensing. As seen in Table 6, it was apparent that the deflection was working as requests canceled under "Not licensed to fill" dropped from 39% of all cancelations in 2014 to 13% in 2015.

TABLE 6 Not Licensed to Fill Cancelations

	Number Canceled	% of Total*
2012**	449	12%
2013	1024	27%
2014	1552	39%
2015	322	13%

* Percentage of Total Cancelations

** First year the cancelation language was introduced

Averaging the increase in these types of cancelations from 2012 to 2013 and 2013 to 2014, it was determined that without the deflection, the library could have expected to cancel as many as 2,000 requests in 2015. The impact to workflow is astonishing if one considers the time saved by eliminating transactions the library knows that it cannot or

will not fill. One must speculate, but assuming it takes a staff member 2 minutes to open a record, review the information, search the library catalog, identify the material as an ebook, and cancel the request, combined with the 1,700 potential requests that the library did not receive, it equates to nearly 57 hours of recovered staff time. This of course assumes that the rate of increase for ebook requests stays relatively stable from year to year, but a growth trend analysis of the cancelation data, which is an admittedly small population and therefore open to error, resulted in an increase to nearly 3,000 canceled requests, so it is entirely possible that the 57 saved staff hours are a conservative estimate. Observing the Lending Fill Rate Statistics report also supported the value of this deflection as reflected in improved rates. In 2014 Lending Fill Rates for loans dropped as low as 43% down from 62% in 2010, however those rates increased to 52% in 2015. The rates should continue to be monitored to note other effects over time.

Though a serials cancelation, when done thoughtfully, will not typically have a noticeable impact on borrowing requests, the effect on lending rates is curiously absent from many of the articles on this topic, except to say that it is an area that may deserve future study (Calvert, et al., 2013). During the study period, Albertsons Library experienced one large cancelation of an electronic journal package and the deselection of a large microfilm collection. A previous internal review unrelated to the data reported here, demonstrated no meaningful impact on borrowing rates. While conducting the current review, the cancelation's effect on lending rates was considered, since the lending decline could not be entirely attributed to the ebook deflection. Observing the Most Requested Journals by Title lending report allowed staff to view all titles for which lending had received at least 10 requests during each 1 year period. Throughout the 6 years analyzed, only one journal was impacted, part of the microfilm collection, and it equated to only 14 requests in 2014. This examination allowed staff to determine that the decrease in lending was not caused by a serials cancelation.

Additional reports reviewed in relation to lending included Lending Turnaround Time and Who We Lend To. The Lending Turnaround Time report did not prove helpful, except to note that the average overall turnaround time had been slowly, but steadily, improving and in 2015 had fallen to just under 24 hours. There was no solid data available for the time elapsed between the request filled notice and shipping, but internal policy is to ship within 4 days or 24 hours for rush. It would be challenging to determine shipping duration for items during the study period, however it was likely comparable to the borrowing turnaround of 10 days. Albertsons Library utilizes library rate mail for most shipping, but provides 4-week domestic or 8-week international checkouts with generous renewals to combat what may be perceived as a slow-shipping speed. As with borrowing, without a substantial investment into costlier shipping options, this is a difficult area to address, in part because the library is restricted by the schedule of on-campus mail services. For example, adding staffing on weekends would not provide more expedited shipping as mail service is restricted to business days. A comparison of peer-institution shipping policies would help clarify whether shipping could be a contributing factor to the lending decline.

A brief overview of the Who We Lend To report did provide some clues. In 2010 Albertsons Library lent to 430 libraries, but only 312 in 2015. In addition, some previously prolific borrowers had dramatically reduced their requests. One borrower, who is known to now be part of a prominent regional consortium, had request rates as high as 273 transactions in 2011. These rates dropped to just 13 transactions in 2015. Another borrower, who is part of a large state system of colleges, was lent 106 items in 2010, but only 32 in 2015. As library budgets continue to stretch, it is logical and reasonable that more institutions are moving to local and regional consortiums, working only within Libraries Very Interested in Sharing (LVIS) or similar groups, of which Albertsons Library is not a member, or borrowing exclusively from reciprocal partners. For comparison, in 2010, Albertsons Library borrowed from 697 institutions, but only 536 in 2015. Though Albertsons Library actively maintains reciprocal agreements, for non-reciprocal institutions there is a $20 domestic or $30 international transaction charge. Birch et al. (2013) described increased lender fees as a common consequence of the economic downturn and identified increased consortia participation as a response to this trend. If the decline were to continue, it could prove valuable to conduct a borrowing institution satisfaction survey to determine if a policy issue, such as transaction cost, was preventing former borrowing institutions from considering Albertsons Library. Though a consortium might not be an option, if policies were the issue, alternatives, such as new reciprocal agreements or extended loan times, could improve relationships with these partners.

Conclusions and Next Steps

The purpose of these extensive data observations was to confirm that interlibrary loan usage at Albertsons Library was declining and if possible, determine why. A decline in borrowing and lending between 2010 and 2015 was easily confirmed by examining basic usage trends. After running multiple reports, analyzing each report for trends, and then comparing trends across reports, it was determined that borrowing use was declining because graduate, and to a degree undergraduate, students were registering for new ILLiad accounts at a much lower rate than in previous years. The number of materials requested by patrons who did use ILL services remained relatively the same. Lending requests were declining because an ebook deflection was implemented at the beginning of 2015 and was working effectively. Lending also declined as borrowing libraries requested fewer materials. Turnaround times and fill rates did not appear to be significantly influencing these issues in borrowing or lending, but this could not be firmly established without further qualitative study.

In *Library Analytics and Metrics*, Ben Showers defines the "streetlight effect" wherein "we often end up focusing on the information and data that we find, rather than on our original questions" (2015, p. xxvi) much like a person who has dropped their keys in a darkened street would concentrate their search in the areas with the most light, even though the keys are not there. In light of this, the approach described here would seem to offer a manageable and yet expansive alternative. Though the initial question asked is typically considered too vague for effective study, this in turn prevents the researcher from losing focus on the naturally occurring data narrative by attempting to impose their own perceptions or answers. Since each category of data is examined independently before being cross-referenced, the method of analysis most appropriate for each report can be utilized. As all reports are generated from the same interface, they will maintain consistent field headings and sub-headings even though all fields may not occur in all reports. In this way, the researcher does not artificially limit themselves, searching only within "the light," that is to say, where they believe the answer will be, when the real cause is located elsewhere. An obvious limitation of this method is its strict reliance on existing quantitative data sets, however, as previously mentioned, in many institutions this may be the only option. This is unfortunate as the data clearly produces further questions. For instance, in this case we can say that borrowing requests are declining because graduate students are not signing up for ILLiad, but we cannot answer why graduate students are not signing up. Such an example demonstrates the value of utilizing this method as a precursor to other forms of evaluation in institutions where additional assessment is possible.

This method can also highlight policy and interface issues that are preventing good assessment. At Albertsons Library, the researcher recommended that the ILLiad registration interface be altered to require a selection, that the *other* option be eliminated or converted to a more useful designation, such as *undecided*, and that the recently restructured college be updated in the menu so as to reflect the correct name. Such changes would help prevent the loss of usable data that occurred in the Customers Cleared report. In a similar manner, beneficial changes already made to borrowing cancelation language were reflected in the Borrowing Requests Finished and Canceled report. During 2010 and 2011 staff were able to enter unique borrowing cancelation language, resulting in 39 different phrases, many of which overlapped. By 2015, this cancelation language had been standardized to 10 phrases. Though much of the previous data proves difficult to compare, going forward the statistics will be much more accessible.

To invert the analogy of the researcher and the streetlight, it may also be argued that the method presented here represents "the light" and not the shadow in the keys scenario. Researchers often believe that using existing reports and observational analysis to be too simplistic a method of assessment to provide any substantial results. In this way they ignore the light entirely, seemingly assuming that if the answer were there, they would be able to see it without any systematic searching. Though library assessment has evolved substantially and there is some distaste for traditional methods of data collection, such a notion ignores the ability of this data to tell a cohesive, if limited, story. Institutions who, like Albertsons Library, notice disquieting trends, will find the construction of a data narrative from existing resources to be a beneficial exercise resulting in a powerful tool.

References

Ahmadi, M., Dileepan, P., and Murgai, S.R. (2013). Predicting demand for inter-library loan requests. *The Bottom Line, 26*, 116-128. doi: 10.1108/BL-05-2013-0012

Atkins, D.P., Greenwood, J.T., and Whaley, P. (2014). Benchmarking and pondering ASERL interlibrary loan operations, 2010 and 2013. *Interlending & Document Supply, 42*, 16-25. doi: 10.1108/ILDS-01-2014-0010

Baich, T. (2015). Open access: Help or hindrance to resource sharing? *Interlending & Document Supply, 43*, 68-75. doi: 10.1108/ILDS-01-2015-0003

Birch, K.J., Goldner, M., and Parson, K.N. (2013). Seven degrees of interlibrary lending. *Interlending and Document Supply, 41*, 12-17. doi: 10.1108/02641611311313034

Boise State University. (2016). *Boise State University Facts and Figures 2015-2016* [Brochure]. Boise, ID: Communications and Marketing. Retrieved from http://news.boisestate.edu/facts/

Calvert, K., Fleming, R., and Hill, K. (2013). Impact of journal cancellations on interlibrary loan demand. *Serials Review, 39*, 184-187. doi: 10.1080/00987913.2013.10766391

Carrico, J.C. and Smalldon, K.L. (2004). Licensed to ILL: A beginning guide to negotiating e resource licenses to permit resource sharing. *Journal of Library Administration, 40*, 41-54. doi: 10.1300/J111v40n01 _04

Frederiksen, L., Cummings, J., Cummings, L., and Carroll, D. (2011). Ebooks and interlibrary loan: Licensed to fill? *Journal of Interlibrary Loan, Document Delivery & Electronic Reserve, 21*, 117-131. doi: 10.1080/1072303X.2011.585102

Greenwalt, R.T. (2013). In search of better metrics. *Public Libraries, 52*(2), 22-23, 26. Retrieved from http://libproxy.boisestate.edu/login?url=http://search.proquest.com/docview/1348870435?accountid=9649

Halling, T.D. and Hahn, D.C. (2013.) Bringing interlibrary loan services under a single sign-on umbrella. *Library Hi Tech, 1*, 76-86. doi: 10.1108/07378831311303949

Kappus, T. (2009). Interlibrary loan tsunami: Investigating the rising tide of borrowing requests at a small private university. *Journal of Interlibrary Loan, Document Delivery, & Electronic Reserves, 19*, 205-217. doi: 10.1080/10723030903031591

Knowlton, S.A., Kristanciuk, I., Jabaily, M.J. (2015). Spilling out of the funnel: How reliance upon interlibrary loan affects access to information. *Library Resources and Technical Services, 59*, 4-12. Retrieved from http://libproxy.boisestate.edu/login?url=http://search.proquest.com/docview/1655882673?accountid=9649

Kress, N., Del Bosque, D., and Ipri, T. (2011). User failure to find known library items. *New Library World, 112*, 150-170. doi: 10.1108/03074801111117050

Little, M. and Leon, L. (2015). Assessing the value of ILL to our users: A comparative study of three US libraries. *Interlending & Document Supply, 43*, 34-40. doi:10.1108/ILDS-10-2014-0051

Massie, D. (2012). Interlending trending: A look ahead from atop the data pile. *Interlending & Document Supply, 40*, 125-130. doi: 10.1108/02641611211239623

McGrath, M. (2015). A review of changes in the delivery of information to users: 12 years of Literature Reviews in Interlending & Document Supply. *The Bottom Line, 28*, 70-76. doi:10.1108/BL-12-2014-0031

Munson, K.I. and Savage, D. (2013). Interlibrary loan's efficacy in meeting students' expectations to acquire textbooks: Results from a study conducted in a large research library. *Journal of Interlibrary Loan, Document Delivery, & Electronic Reserves, 23*, 191-200. doi: 10.1080/1072303X.2014.890151

Murphy, R.M. and Greenwood, J.T. (2009). Feasibility of analyzing interlibrary loan requests to determine instruction needs. *Journal of Access Services, 6*, 359-387. doi:10.1080/15367960902894674

Posner, B. (2014). The view from interlibrary loan services. *College and Research Libraries News, 75*, 378-381. Retrieved from http://libproxy.boisestate.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=llf&AN=97060013&site=ehost-live

Showers, B. (2015). *Library analytics and metrics: Using data to drive decisions and services*. London, England: Facet Publishing.

Shrauger, K.J. and Doston, L. (2010). Scan by numbers: Interlibrary loan lending statistics shape digital initiative. *Journal of Interlibrary Loan, Document Delivery, & Electronic Reserves, 20*, 135-148. doi:10.1080/1072303X.2010.488517

Shrauger, K.J., Calabrese, C.M., and Spyers-Duran II, P. (2016). ILL data drives technical service projects. *Technical Services Quarterly, 33*, 14-22. doi:10.1080/07317131.2015.1093818