Teaching Patrons to Fish: The Educational Value of Cancelling Requests for Locally Available Materials

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The Educational Value of Cancelling Requests for Locally Available Materials

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ABSTRACT

Expansive document delivery service for locally available materials is becoming increasingly popular, but is a learning component lost with the implementation of this service? In this study, the authors compare data from two institutions, one that provides an unadvertised document delivery service without instruction, and another that cancels requests for locally available materials with an instructional component. The behavior of each institution’s patrons over a four-year period is analyzed and found to differ at statistically significant levels. These findings will be useful for interlibrary loan policy makers who are considering whether to implement document delivery for locally available items.

INTRODUCTION

In October 2014, Christopher Millson-Martula sent an email to the College Libraries Section (COLLIB-L) listserv to ask how other libraries handle interlibrary loan requests for electronically available materials. Seven out of the eight respondents indicated that they send the patron the full text (either a link or PDF). One of these librarians commented, “Our philosophy is you want it we get it. We feel it is better customer service to provide the article rather than cancel a request and/or send a link to a patron where they can get it. I also do not believe patrons know/care where something comes from” (Pinto, 2014). The only respondent who did not indicate that requests for electronically available articles were filled stated, “[W]e have a default message that goes to the user asking them to use our Journal Titles A-Z list or our Database A-Z list to find articles... In some cases, I will send the user a link to the article, especially if I know it’s a first-year student or a first-time ILL user” (Jackson, 2014).

This exchange illustrates that many librarians feel that offering expansive document delivery (EDD) services is an important customer service; one that justifies the extra staff time required to make such a program a success. For this paper, EDD will be defined as document delivery of locally available materials to all patrons, not just distance patrons. The authors, one who oversees an interlibrary loan department that does not offer EDD and the other who recently retired from an institution that offers EDD except for electronically available articles, wondered whether there might be educational component to cancelling requests for locally available material. If a library cancels requests for locally available materials with an instructional email, are its patrons less likely to place such requests in the future when compared with a library that offers EDD?

The objectives of the study are 1) to determine whether the processing method used for locally available materials affects patron behavior, and 2) to determine whether results vary by status of user or user discipline.

LITERATURE REVIEW

Cancellations of Locally Available Materials

The current body of interlibrary loan literature related to requests for locally available materials focuses on determining reasons and patterns behind such requests. There are no studies examining how libraries respond to requests for available materials to investigate whether method of notification is an effective deterrent for the future, although some studies suggest possible strategies for reduction.

The issue of patrons requesting locally available materials is one that has troubled interlibrary loan professionals for a long time. Researchers at the University of Florida reviewed 300 of these requests in 1998 and found that “11% of the requests were from patrons who demonstrably knew that the library owned the item” (Yontz, Williams, & Carey, 2000, p. 125). Many of their suggested action items are no
longer relevant due to changes in technology, but the central idea that patrons will place interlibrary
loan requests if an item is too difficult to locate is still valid today.

In a 2009 study, Murphey and Greenwood researched “groups of patrons who most frequently request
locally owned materials” (p. 360). They hoped to be able to target instruction to those groups. On the
University of Mississippi campus during the period researched, they started to provide faculty document
delivery services for locally available articles, but not for books and electronically available articles.
Therefore, faculty naturally had a lower percentage of cancellations due to local availability than other
patron groups. Murphey and Greenwood’s research determined that undergraduates had the greatest
percentage of cancellation, but that graduate students accounted for the greatest number of
cancellations, causing University of Mississippi to target graduate students for instruction (p. 377). Part
of the reasoning behind the decision to focus on graduate students was to reduce the overall volume of
cancellations, and because graduate students teach undergraduates and can transfer research skills
through teaching (p. 378-379).

Murphey and Greenwood also found that those who use interlibrary loan the least make the most errors
requesting locally available materials. Their suggestions for reduction of problematic requests include
instruction, creating a tutorial to be completed at the time of registration, catalog improvements and
evaluating which databases are generating the most requests for locally held items to see if there are
problematic databases (p. 378-381).

In another study published the same year, the researchers had seemingly contradictory findings. Page
and Kuehn found that at Ohio State “there was no significant effect of patron status or campus on the
frequency of interlibrary loan requests canceled due to local or electronic availability” (p. 487).
However, Ohio State, unlike University of Mississippi, offers EDD for all patrons, not just faculty, which
could explain the difference between studies. In Page and Kuehn’s study, there is no differentiation
made between undergraduates and graduate students, which is the distinction on which Murphey and
Greenwood focused.

Both studies investigated the correlation between patron department and cancelled requests, but their
results were dissimilar. For example, Business was listed as the school with the second highest fill rate
out of eight for University of Mississippi (Murphey & Greenwood, 2009, p. 374) while Ohio State’s
College of Business was ranked 40/50 (Page & Kuehn, 2009, p. 483). Many of the factors affecting
departmental activity are likely to be local to an institution.

Related to Murphey and Greenwood’s suggestion that research be conducted to determine if some
databases are more likely to cause requests for locally available materials, Megan Gaffney (2012)
evaluated such cancellations to see if the adoption of WorldCat Local at the University of Delaware
affected volume. She determined that WorldCat Local decreased “the number of cancellations due to
local holdings” (p. 72).

In a study conducted over three months of 2009, a Florida Gulf Coast University researcher reviewed all
requests placed with particular focus on those cancellations due to availability (Reycraft, 2010). Similar
to the findings of Yontz and colleagues, Reycraft found that when an electronic article was not available,
patrons would proceed “to immediately place an ILL request rather than search the catalog to see if it
might be available in print or micro format.” One of the author’s suggestions is to expand document
delivery services to cover items not available electronically, although she recognizes that such a program
requires considerable staff time, additional technology, and changes to departmental procedures (p. 40-
41).
Document Delivery: Pros and Cons

Most of the literature regarding EDD is from providers of that service and is predominantly favorable. In a 2011 book chapter devoted to the future of interlibrary loan, Oberlander suggested that, “Increasingly, ILL personnel will change ILL services and systems to include more document delivery” (p. 116). This represents a paradigm shift in historical interlibrary loan thought. In 2004, O’Brien stated that “Interlibrary loan service is primarily intended to supplement collection development, not to serve as a document delivery service” (p. 23).

In the early 2000s, a few institutions chose to offer EDD to their patrons and wrote about their experiences (Yang, 2005; Rumble & King, 2008; Litsey & Daniel, 2013). Generally, these institutions still cancel requests for electronically available items, but fill items held in print within the library. In the cancellation email for digitally available materials, both Texas A&M and Auburn University provide a link to the full text of the item (Yang, 2005, p. 52; Rumble & King, p. 234).

Libraries that offer EDD report that their users are extremely happy with the service. Auburn University faculty identified it as the library’s most important service in a LibQUAL survey (Rumble & King, p. 230). Texas A&M polled its EDD users in 2012 and 99% of users reported that the service met their needs, and one user commented that EDD is “the most effective, invaluable service with high-quality customer service that distinguishes TAMU as a superior research institution dedicated to the success of its faculty, staff and students” (Yang, Hahn, & Thornton, 2012, p. 105-106).

Yang outlined some challenges to EDD implementation in her 2005 article. Challenges included staff resistance, the need for more equipment, and increased student hours to handle the extra work (p. 50-51).

One aspect that has not been adequately addressed in the EDD literature is the learning component that is eliminated when patrons are sent full text or links to full text in response to locally available requests. Yang and colleagues touched on this topic when they asked their users whether they “would prefer that we explain how to find an online copy of their requested document or just send them a PDF.” Over half the respondents said they would prefer just to receive the full text without any directions. Only 14% reported that they would like to know how the resources were found (2012, p. 102).

This addresses what patrons would like, but not necessarily what they need. With our professional focus on information literacy, it is useful to consider what we, as librarians, can do to assist patrons on their path to research competency.

INSTITUTIONAL BACKGROUND

Valparaiso University (Valpo) is a private, comprehensive institution located in northwest Indiana, about an hour away from Chicago. As of Fall 2014, it serves a student body of approximately 4,300 full time equivalents (FTE).

The university has seven colleges: Arts & Sciences, Engineering, Business, Nursing, Honors, Graduate School, and Law. The law school has its own library, but all the other colleges are served by the Christopher Center Library. Although the law library and Christopher Center are separate, they share a catalog, some databases, and during the period of this study had a combined interlibrary loan operation.

Valpo is an ILLiad institution, and operates a shared server with two symbols: IVU for main campus and IVZ for law. The Interlibrary Loan Department is managed by one full time staff member: the Interlibrary
Loan Manager (ILLM). The ILLM employs several student assistants who work approximately 1 FTE. The circulation department, which reports to the Director of Research Services, helps out with scanning lending articles during the evening. The Interlibrary Loan department reports to the Electronic Services Librarian. Although the interlibrary loan (ILL) and circulation departments are functionally separate, they collaborate on a daily basis.

Valpo has two limited document delivery (DD) programs in place. The first DD program is for distance patrons. Faculty and students who meet a set of criteria can apply for distance patron status, and once approved, can request locally held articles, books, DVDs, etc. Locally held articles are scanned and delivered by the Interlibrary Loan Department through the ILLiad interface. Book, CD, and DVD requests are received by the circulation department, which mails those items to patrons’ preferred addresses. A second DD program covering microform format is available to all Valpo patrons. Because the microform machines are difficult for many users, the library implemented this program in 2008. With the exception of distance patrons and microform format, Valpo does not provide DD to patrons: all other requests for locally held materials, whether electronic or print, are cancelled.

This study will focus on IVU’s data from July 2010–June 2014. During the four-year period of study, IVU received 36,931 borrowing requests and 23,080 lending requests. Of the 36,931 borrowing requests received, 6,024 (16%) were cancelled. Approximately 25% (1,507/6,024) of those cancelled requests were the result of local availability. Hereafter, any reference to Valpo will be a reference to Valpo’s main campus: IVU.

**METHODOLOGY**

In order to compare behavior of patrons as the result of different methods of cancellation, other institutions’ data were needed. Because sharing interlibrary loan data unedited would raise privacy concerns for potential volunteer institutions, the authors created two sets of directions with screen shots: one to pull data from ILLiad, and another for anonymizing user data within an Excel spreadsheet (see Appendix). Valparaiso University’s Institutional Review Board approved the study.

The authors used professional listservs to identify libraries using different methods of response to requests for locally owned materials. In some cases, potential participants were targeted based on their self-reported methodology from listserv posts, and then the authors also sent out a call for participants on the workflowtoolkit-I (ILLiad) listserv. Libraries interested in providing data for the study were asked to contact the principal author to determine whether their data matched the criteria needed for participation. The three criteria were: the library must be an ILLiad user, have data for all transactions from 7/1/2010 to 7/1/2014, and have used only one method to respond to requests for locally held materials during the four year period. The outreach resulted in several queries of interest. All interested parties were provided with the two set of directions mentioned previously. Only one of the queries, from the University of Maryland, Baltimore County, resulted in a return of anonymized data.

The University of Maryland, Baltimore County (UMBC) is a public, high research institution with an enrollment of 13,979 (UMBC, 2015). UMBC’s interlibrary loan department uses ILLiad. They do not advertise a document delivery service, but since 2008 have filled requests for locally held materials through document delivery. When filling these requests, no instructional messages for locating the materials in UMBC’s collections are used (R. Moskal, personal communication, December 15, 2014).

This study is a comparison of existing data from Valpo and UMBC. Valpo, as stated in the Institutional Background section, cancels requests and sends emails with an embedded link to a page that explains...
how to find items in Valpo’s collections. For the remainder of this paper, this method will be referred to as the instruction method. UMBC provides the item through document delivery without an indication that the item comes from the library’s collection. This method will be referred to as the delivery method.

The following data elements were used for analysis: user number, status of the user, institution, the department name of the user, and creation date and time. Definitions or examples of the data elements can be found in Table 1.

Table 1. Data elements

<table>
<thead>
<tr>
<th>Data element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>User number</td>
<td>Unique number assigned to each individual user during the anonymizing process</td>
</tr>
<tr>
<td>Status of user</td>
<td>Faculty, staff, undergraduate student, graduate student</td>
</tr>
<tr>
<td>User’s institution</td>
<td>Valpo or UMBC</td>
</tr>
<tr>
<td>User’s department</td>
<td>Academic department name provided by the user</td>
</tr>
<tr>
<td>Creation date &amp; time</td>
<td>Date and time user initiated the request</td>
</tr>
</tbody>
</table>

The data were combined in a single spreadsheet and the vocabulary was standardized. Using the departments affiliated with the users, department names were normalized between the two institutions and then assigned to broad disciplines. The broad disciplines are comprised of the narrower disciplines listed in Table 2.

Table 2. Broad disciplines used in categorizing user departments

<table>
<thead>
<tr>
<th>Broad discipline</th>
<th>Includes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>Art, Dance, Music, Theatre, Visual Arts</td>
</tr>
<tr>
<td>Humanities</td>
<td>Area studies, Classics, English, Foreign languages, History, Philosophy, Theology</td>
</tr>
<tr>
<td>Science</td>
<td>Aging studies, Astronomy, Biological sciences, Chemistry, Computer science, Earth sciences, Engineering, Geography, Health sciences, Mathematics, Meteorology, Nursing, Physics, Systems Information</td>
</tr>
<tr>
<td>Other</td>
<td>College of Arts and Sciences, Honors college, Interdisciplinary studies, University Administration, Unlisted</td>
</tr>
</tbody>
</table>

In order to determine whether the method of handling requests for locally available materials affects future behavior, the authors wanted to differentiate between a user’s requests placed at essentially the same time, whose resolution would not affect other requests placed within minutes or hours, and those user’s requests separated by at least a day. According to Valpo’s ILLiad Turnaround Time report, Valpo’s average overall processing time (from submitted to sent) during the period of study for completed requests was 9.14 hours. Based on Valpo’s average processing time, an assumption was made that both institutions generally process requests within one day. Therefore, during statistical analysis requests separated by at least 24 hours were considered repeat requests, while results separated by less than 24 hours were treated as non-repeat requests. The following definitions are used.

Initial request: the first or only request by a user during the four years under consideration
Additional request: any request by a user other than the initial request.
Repeat request: any additional request by a user that is placed a day or more after the previous request
The authors purposefully chose to compare each request against the user’s prior request instead of their initial request. This approach takes into account that a person who requests items over time can learn and modify behavior throughout that time period. Each repeat request means that the instructions for the preceding request did not “take.”

Table 3 illustrates these definitions.

Table 3: Illustration of Definitions for Patterns of Requests Used in Data Analysis

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>User A</td>
<td>Initial</td>
<td>Repeat</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>User B</td>
<td>Initial</td>
<td>Repeat</td>
<td>Additional</td>
<td>Repeat</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>User C</td>
<td>Initial</td>
<td>Repeat</td>
<td>Additional</td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Figure 1 illustrates the relationships among the patterns of requests.

Figure 1.

RESULTS

There were a total of 14,589 ILL requests for locally available materials from both institutions. There were 658 initial requests, and 849 additional requests at Valpo (total = 1,507). UMBC had 2,046 initial requests, and 11,036 additional requests (total = 13,082). To determine the likelihood that either the instruction or delivery method reduces additional requests for owned items, the authors compared only initial and repeat requests. This eliminated 378 transactions from Valpo, and 4,768 transactions from UMBC (total = 5,146) by requestors who placed new requests within 24 hours of their prior request. See table 4 for descriptive data of the initial and repeat requests by institution.

Table 4. Number of Initial/Repeat Request by Institution

<table>
<thead>
<tr>
<th>Institution</th>
<th>Initial Requests</th>
<th>Repeat requests$^1$</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>UMBC</td>
<td>2046</td>
<td>6268</td>
<td>8314</td>
</tr>
<tr>
<td>Valpo</td>
<td>658</td>
<td>471</td>
<td>1129</td>
</tr>
<tr>
<td>Total</td>
<td>2704</td>
<td>6739</td>
<td>9443</td>
</tr>
</tbody>
</table>

$^1$Requests made by an individual 24 hours or more after the prior request
Pearson chi-square ($\chi^2$) was used to test the independence of the variables, comparing initial/repeat requests by institution, status, and general discipline.

The data in Table 5 show the result for the comparison of initial and repeat requests used by the two institutions. A Chi-square test rejects the null hypothesis that initial/repeat requests are independent of institution; this difference is significant at the $p < .001$ level. Patrons at UMBC, which uses the delivery method, are more likely to place repeat requests for locally available materials than patrons at Valpo, which uses the instruction method.

Table 5. Chi-square table: Initial/Repeat Requests by Institution

<table>
<thead>
<tr>
<th></th>
<th>UMBC</th>
<th>Valpo</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial request</td>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2046</td>
<td>658</td>
<td>2704</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>2380.7</td>
<td>323.3</td>
</tr>
<tr>
<td></td>
<td>% within institution</td>
<td>24.6%</td>
<td>58.3%</td>
</tr>
<tr>
<td>Repeat request</td>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6268</td>
<td>471</td>
<td>6739</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>5933.3</td>
<td>805.7</td>
</tr>
<tr>
<td></td>
<td>% within institution</td>
<td>75.4%</td>
<td>41.7%</td>
</tr>
<tr>
<td>Total</td>
<td>8314</td>
<td>1129</td>
<td>9443</td>
</tr>
</tbody>
</table>

$\chi^2 = 551.524; \text{ df} = 1; p < .001$

For the next comparisons to determine whether behavior differs by patron status or general discipline, each institution’s data were run separately. This is because the distribution of users varies between the institutions. For example, undergraduate requests make up 55% of Valpo’s data, while undergraduate requests are only 21% of UMBC’s total.

The first two tests compare initial/repeat requests by patron status. For both UMBC and Valpo, Chi-square tests reject the null hypothesis that initial/repeat requests are independent of patron status; in both cases this difference is significant at the $p < .001$ level. The results from the two institutions are remarkably similar. There are more repeat requests for locally available material by faculty and graduate students than would be expected, and fewer repeat requests from undergraduates. Staff results were about as expected (see Tables 6 and 7).

Table 6. Chi-square table: UMBC’s Initial/Repeat Requests by Patron Status*

<table>
<thead>
<tr>
<th></th>
<th>Faculty</th>
<th>Graduate</th>
<th>Staff</th>
<th>Undergraduate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial request</td>
<td>Count</td>
<td>274</td>
<td>878</td>
<td>68</td>
<td>824</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>405.4</td>
<td>1135.1</td>
<td>70.1</td>
<td>433.4</td>
</tr>
<tr>
<td></td>
<td>% within status</td>
<td>16.6%</td>
<td>19.0%</td>
<td>23.9%</td>
<td>46.8%</td>
</tr>
<tr>
<td>Repeat request</td>
<td>Count</td>
<td>1374</td>
<td>3737</td>
<td>217</td>
<td>938</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>1242.6</td>
<td>3479.9</td>
<td>214.9</td>
<td>1328.6</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>83.4%</td>
<td>81.0%</td>
<td>76.1%</td>
<td>53.2%</td>
</tr>
</tbody>
</table>
Table 7. Chi-square table: Valpo’s Initial/Repeat Requests by Patron Status

<table>
<thead>
<tr>
<th></th>
<th>Faculty</th>
<th>Graduate</th>
<th>Staff</th>
<th>Undergraduate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial request Count</td>
<td>82</td>
<td>144</td>
<td>12</td>
<td>420</td>
<td>658</td>
</tr>
<tr>
<td>Expected count</td>
<td>112.5</td>
<td>172.5</td>
<td>9.9</td>
<td>363.1</td>
<td>658</td>
</tr>
<tr>
<td>% within status</td>
<td>42.5%</td>
<td>48.6%</td>
<td>70.6%</td>
<td>67.4%</td>
<td>58.3%</td>
</tr>
<tr>
<td>Repeat request Count</td>
<td>111</td>
<td>152</td>
<td>5</td>
<td>203</td>
<td>471</td>
</tr>
<tr>
<td>Expected count</td>
<td>80.5</td>
<td>123.5</td>
<td>7.1</td>
<td>259.9</td>
<td>471</td>
</tr>
<tr>
<td>% within status</td>
<td>57.5%</td>
<td>51.4%</td>
<td>29.4%</td>
<td>32.6%</td>
<td>41.7%</td>
</tr>
<tr>
<td>Total</td>
<td>193</td>
<td>296</td>
<td>17</td>
<td>623</td>
<td>1129</td>
</tr>
</tbody>
</table>

χ² = 600.659; df = 3; p < .001
*Excludes requests from users with “Special Borrowers” status

Data comparing initial and repeat requests with general discipline are statistically significant for UMBC, but not for Valpo. A Chi-square test of UMBC’s data rejects the null hypothesis that initial/repeat requests are independent of general discipline; this difference is significant at the p < .001 level. The data show that the number of repeat requests from the Sciences for locally available material is greater than expected (see Table 8).

Table 8. Chi-square table: UMBC’s Initial/Repeat Requests by General Discipline

<table>
<thead>
<tr>
<th></th>
<th>Arts</th>
<th>Humanities</th>
<th>Science</th>
<th>Social Science</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial request Count</td>
<td>28</td>
<td>210</td>
<td>789</td>
<td>941</td>
<td>78</td>
<td>2046</td>
</tr>
<tr>
<td>Expected count</td>
<td>15.3</td>
<td>180.1</td>
<td>913.2</td>
<td>885.7</td>
<td>51.7</td>
<td>2046</td>
</tr>
<tr>
<td>% within status</td>
<td>45.2%</td>
<td>28.7%</td>
<td>21.3%</td>
<td>26.1%</td>
<td>37.1%</td>
<td>24.6%</td>
</tr>
<tr>
<td>Repeat request Count</td>
<td>34</td>
<td>522</td>
<td>2922</td>
<td>2658</td>
<td>132</td>
<td>6268</td>
</tr>
<tr>
<td>Expected count</td>
<td>46.7</td>
<td>551.9</td>
<td>2797.8</td>
<td>2713.3</td>
<td>158.3</td>
<td>6268</td>
</tr>
<tr>
<td>% within status</td>
<td>54.8%</td>
<td>71.3%</td>
<td>78.7%</td>
<td>73.9%</td>
<td>62.9%</td>
<td>75.4%</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>732</td>
<td>3711</td>
<td>3599</td>
<td>210</td>
<td>8314</td>
</tr>
</tbody>
</table>

χ² = 65.466; df = 4; p < .001
USE OF VALPO’S INSTRUCTIONAL PAGE

At Valpo, the cancellation email that patrons receive differs based on request type: loan or article. However, both types of cancellation emails direct patrons to different places on the same web page. One section of the web page covers locating books and other materials in Valpo’s catalog, and the other section explains how to find journal articles. This web page is not linked from anywhere on the library’s site, so most visitors find it through cancellation emails.

Although the page has been in use for many years and predates the period of this study, Valpo did not start tracking its use through Google Analytics (GA) until March 19, 2012. A report covering March 19, 2012 through July 1, 2014 shows that the page is being used (see Figure 2). GA returned a sample report (50.21% of sessions) that shows that the average time spent on the page is 3 minutes 42 seconds, which is considerably longer than the 1 minute 52 second average for the whole site, and indicates that users who click on that page actually read it.

Figure 2. Google Analytics report for usage of interlibrary loan instructional page

In order to find total page use without sampling, the authors ran three separate GA reports covering that combined covered the entire March 19, 2012 through July 1, 2014 date range. The sum of these reports shows the total number of page views was 175.

During that same time period, Valpo cancelled 675 requests for local availability; meaning the link to the page in question was sent out 675 times. This represents a visit rate of 26% (175/675).

DISCUSSION
As discussed in the literature review, much has been written about the advantages of EDD. Patrons like the service and show their satisfaction through patron surveys and other feedback mechanisms.

UMBC does not advertise EDD, but provides the service without promotion. This study shows that UMBC patrons place a higher percentage of repeat requests, in statistically significant terms, than Valpo patrons whose requests are cancelled with an instructional message. It is unknown how many of UMBC’s patrons knowingly place requests for locally available material because it is easier than tracking down the full text themselves, versus how many are placing the requests because they do not know how to locate an item. Research that has shown that some patrons knowingly place requests for locally available materials (Yontz, Williams, & Carey, 2000, p. 125), but also that some patrons at an EDD institution would prefer some instruction on locating materials (Yang, Hahn, & Thornton, 2012, p. 102). It is reasonable to infer that both of these findings are also true for some portion of UMBC’s patrons. In other words, there are likely patrons who knowingly place requests for locally available materials because they have been successful with such requests in the past. For these users, an educational component is not necessary. However, there are also patrons who unknowingly place requests for locally available materials who would benefit from some instruction.

What are the benefits of the instruction method that Valpo uses? As the results show, it results in fewer repeat requests for locally available materials, which reduces the interlibrary loan department’s workload. The other benefit is educational. In the Framework for Information Literacy for Higher Education, one of the frames is “Searching as Strategic Exploration” and users who have mastered this frame are able to “[u]nderstand how information systems are organized to access relevant information.” (American Library Association, 2015) The framework illustrates the importance of teaching our users how to find information themselves, and the instruction method used by Valpo helps develop this skill.

One measure of the effectiveness of Valpo’s instruction method is the use of the instructional web page linked from cancellation emails. Although the visit rate indicates only about a quarter of emails result in hits, the length of those visits indicates quality use. Once there, visitors spend time on the page; absorbing its content.

A noteworthy finding from this study is that for both UMBC and Valpo, undergraduates performed better (placed fewer repeat requests for locally available material) than faculty and graduate students. This differs from Murphey and Greenwood’s finding that undergraduates have a greater rate of cancellation than graduate students (p. 368-369). It is difficult to say why undergraduates performed better than graduate students in this study, but it may be due to local institutional practices.

In this study, UMBC’s science-affiliated patrons were more likely to place repeat requests for locally available material than patrons from other general disciplines. The University of Mississippi study found that Liberal Arts had the highest fill rate and Nursing had the lowest (Murphey & Greenwood, p. 374). The Ohio State study found that History performed the best while Education performed the worst, with sciences fairly evenly distributed among the rankings (Page & Kuehn, p. 482). A larger, multi-institution study would be required to determine if these departmental differences are due to institutional variances or disciplinary practices.

One of the difficulties the authors encountered with this project was recruitment of institutions willing to share their data. Some volunteers expressed interest, but dropped out upon receiving the two sets of directions (see Appendix). The directions for anonymizing the data were necessarily complex to assure patron privacy, but unfortunately these directions seem to have been a barrier for some volunteers. And at least one volunteer did not feel the privacy measures put in place went far enough. This
representative was interested initially, but after discussion with his colleagues, responded that even
with the anonymizing procedures, they were not comfortable sharing that level of patron reading
history.

The study would have been stronger with the inclusion of more institutions’ data. It seems likely that
the difference in behavior between UMBC’s and Valpo’s users is due to the different treatment
methods: instruction vs. delivery; but there could be unknown factors affecting the two institutions’
patron behavior in different ways. The two institutions are not alike: Valpo is a medium, private,
selective, Master’s institution while UMBC is a large, public, more selective, Research institution
(Carnegie Foundation for the Advancement of Teaching, 2010). However, none of those institutional
differences seem likely candidates for altering patron behavior in the same way as interlibrary loan
department processing methods.

CONCLUSION

Although there are valid reasons for offering an expansive document delivery service for locally available
materials, namely happy patrons; there are parallel reasons for cancelling these requests with an
instructional component. The most important argument for cancellation is the educational value.
Patrons who know they are requesting locally available material can learn and alter their behavior.
When patrons are provided with the full text regardless of whether it is already available to them, they
do not have any way to learn to locate materials using library resources.

Lately, academic librarians have given much attention to the newly developed Framework for
Information Literacy for Higher Education. The threshold concept “Searching as Strategic Exploration”
outlines the importance of the ability to find needed information (ALA, 2015). Cancelling locally
available requests with an instructional message serves a tool to help patrons on their path to
information literacy.

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APPENDIX

How to pull needed data from ILLiad
(Directions written using ILLiad 8.4.3)

From ILLiad Client:

Under “Search Requests” select “Custom Request Search” (see image)

- Click on “And +”
  Pull down “Transactions” and select “TransactionDate”
  Change “Contains” to “Is between”
  For dates enter: 7/1/2010 and 7/1/2014
- Add another line (click the plus sign)
  Pull down “Transactions” and select “ProcessType”
  Change “Contains” to “Equals”
  In <enter a value> write borrowing (it’s not case sensitive)
  Note: depending on how you process requests for locally held materials, you may need to enter
document delivery here.
• Then hit And, and select “Add Group” (see screenshot). It will insert a group with “And.” Change that “And” to “Or.”

The rest of the search parameters are unique to each institution; your parameters will depend on unique statuses your institution uses for locally held materials. Enter a unique string from those transaction field values under “Or” as illustrated below (note: yours won’t be “ReasonForCancellation” if you don’t cancel requests for locally held materials).

Here is Valpo’s example.

Run data. Look at [Transaction Field Name] column and verify that all the requests listed are used for locally held materials only.

Once data are run, export as an excel spreadsheet.

With the important exception of the username column, please delete all columns with personally identifying information (address, phone, etc.). Please Leave Status column (Undergraduate, Graduate, Faculty) and department column. Please leave all columns without personally identifying information in the spreadsheet.

Next, please follow the Directions to Anonymize Usernames within Excel document to mask your patrons’ identities.
Directions to Anonymize Usernames within Excel

These directions were written using Microsoft Excel 2010. If you run into problems for any reason, including use of a different version of Excel, please let me know.

Before you begin this process, you’ll want to create a copy of your ILL data spreadsheet and save it for backup.

Within your Excel data file:

• create new sheet (Lookup Sheet). We now have two sheets: One with the original ILL Data (ILL Data sheet) and the Lookup Sheet.
• Copy Username column from ILL Data Sheet to Lookup Sheet.
• To remove duplicate values from username column in Lookup Sheet, use the Remove Duplicates command in the Data Tools group on the Data tab.

On Lookup Sheet:

• In the column just to the right of your deduped username column, put the number 1 in the first cell to the right of the first name.
• Press on the CTRL key (and keep it pressed down), select the cell in which you put the number, hover at the bottom right of that cell and you’ll see a plus sign.
• Continuing to keep the CTRL key and the left mouse button pressed, drag the cursor down until you get to the bottom of that column (in line, or below, the row with the last username in the first column).
• Release the left mouse key first, then the CTRL key.

Next we’re going to define that section (both original usernames and numbers) for use in our formula later. To do this,

• go to the bottom of the list of usernames, select across both columns, and move up so that all usernames and corresponding numbers are selected.
• Right click, select “define name,” enter Randomizer, and select “ok.”

On ILL Data sheet:
• Insert a column to the right of username column, select that column, right-click and select “format cells”, and select General.
• Within that new (blank column), put a header at the top that says 'Username No.’. Select the cell right below that header. Hit the function icon (highlighted in image below).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Username</td>
<td>Username No.</td>
<td>Request Type</td>
</tr>
<tr>
<td>114115</td>
<td>Arianna</td>
<td>114115</td>
<td>Article</td>
</tr>
<tr>
<td>122570</td>
<td>Leila</td>
<td>122570</td>
<td>Loan</td>
</tr>
<tr>
<td>122591</td>
<td>Kayla</td>
<td>122591</td>
<td>Article</td>
</tr>
<tr>
<td>122649</td>
<td>Amber</td>
<td>122649</td>
<td>Article</td>
</tr>
<tr>
<td>122668</td>
<td>Victor</td>
<td>122668</td>
<td>Article</td>
</tr>
</tbody>
</table>

A box will pop up that says “Search for a function”; enter vlookup, select vlookup from the resulting list, and press “ok.” Enter the values below, then press “ok.”

```
Function Arguments
VLOOKUP
Look-up_value    B2  =  "Arianna"
Table_array      Randomizer   =  {("Arianna", 1);("Leila", 2);("Kayla", 3);("Amber")
Col_index_num    2  =  2
Range_lookup     FALSE  =  FALSE

= 1
```

Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order.

Range_lookup is a logical value; to find the closest match in the first column (sorted in ascending order) = TRUE or omitted; find an exact match = FALSE.

• Double-click on bottom right of cell to which formula has been applied to get it to apply to entire column. You will now have a list of numbers next to the original usernames.
• Double check that each repeating username in the left column was assigned the same repeating number in the second column (example, if asmith is listed multiple times in the first column, the same number is used for all examples of asmith).
If everything looks ok, we will prepare to delete the username column. It can’t be simply deleted, or else the random name column will return an error since it’s using a formula that refers to the username column.

- Create a new column alongside the Username No. column. Copy (CTRL-c) the Username No. column. Select the blank column and paste via right mouse click; selecting the ‘values’ option (see highlighted area in screenshot below).

Once your numbers are pasted into the new column, you can delete your Username column. Then delete the Lookup sheet (which also includes the usernames). Save file.

Finally, send your anonymized data, along with the default email templates used for locally available materials, to ruth.connell@valpo.edu. Thank you!!