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Opening interlibrary loan to open access

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Abstract

Purpose – The purpose of this paper is to examine interlibrary loan requests for open access materials submitted during fiscal years 2010 and 2011 and to determine the impact of open access materials upon fill rate for interlibrary borrowing requests.

Design/methodology/approach – Borrowing requests for open access materials were quantitatively analysed and compared to total borrowing requests.

Findings – During the period studied, borrowing requests for open access materials increased while overall requests held steady. As the number of requests filled with open access documents continues to rise, IUPUI University Library is able to provide a service to users and cost savings for the library by utilizing this material. The difficulty users have in navigating the online information environment makes it unlikely that interlibrary loan requests will decrease due to the growing amount of open access material available.

Originality/value –The literature discussing the use of open access materials to fulfill ILL requests is limited and largely focuses on educating ILL practitioners about open access and providing suggested resources for locating open access materials. This research paper studies actual requests for open access materials and their impact on interlibrary loan.

Keywords – open access, interlibrary loan, interlending, academic libraries

Paper type – Research paper

Introduction

Even though open access materials are freely available on the Internet, library users still request them through interlibrary loan (ILL). In February 2009, Indiana University-Purdue University Indianapolis (IUPUI) University Library began tracking borrowing requests for open access materials. As the number of requests filled with open access documents continues to grow, IUPUI University Library is able to provide a service to users and cost savings for the library by utilizing this material. This paper presents data regarding IUPUI University Library's open access ILL borrowing requests for fiscal years 2010 and 2011 and describes some of the most commonly used online resources for filling these requests.

Discussion of open access is generally focused on scholarly journal publishing and the free availability of content either directly from publishers or through the self-archiving efforts of authors. Proponents of open access in this context argue that it allows for wider dissemination of scholarly work, thus providing authors the opportunity for greater impact. It also lowers the cost barrier to providing content for libraries and, in the academic world, gives the institution access to the scholarly output of its faculty. However, many other documents fit the general criteria of open access: digital, online content that is both free of charge and free of most copyright and licensing restrictions (Suber, 2010). Based on these criteria, I include conference papers, electronic theses and dissertations (ETDs), and public domain works in my discussion of open access ILL requests.

Literature review

There is no shortage of articles on open access, but very little tying open access to interlibrary loan. In 2006, Karen Kohn encouraged ILL practitioners to find both free lenders and free materials in order to lower ILL costs (Kohn, 2006, p. 58). The section on finding free materials describes "sites that list journals with free full-text access and databases that either include full text or provide links to full text at publishers' Web sites" (Kohn 2006, p. 61). Kohn also rightly suggests checking for online availability of commonly free materials such as government documents, reports, and white papers before attempting to borrow them. Despite listing a number of resources for open access

journal articles, Kohn never uses the term open access beyond recommending the Directory of Open Access Journals. The sites the author recommends are still prominent sources for open access materials.

In the same year, Heather G. Morrison discussed open access and its implications for resource sharing. Morrison uses the majority of her article to provide an overview of open access, a list of specific open access resources, and a discussion of a Canadian library network knowledgebase, which includes records for open access journals. Where she sets herself apart is in her presentation of possible implications of open access on resource sharing. Early in the article, Morrison quotes Mike McGrath's statement that open access "is one of the reasons for the decline in document delivery in many countries" (McGrath, 2005, p. 43), but does not entirely accept this assertion. She suggests that increased user expectations may result in "a decrease in routine interlibrary loan requests, combined with an increase in more complex requests requiring more expert knowledge and/or more advanced search skills" (Morrison, 2006, p. 106). While IUPUI University Library has not seen a marked decrease in routine ILL requests, it is clear that users are locating rare materials that do require more effort on the part of staff to locate. Though Morrison did not present data to support her arguments, she rightly anticipated a partial shift in interlibrary loan work.

Another article connecting open access and ILL was published in 2010 (Martin, 2010). Rebecca Martin seeks to educate reference and ILL staff about open access resources and the importance of maintaining current awareness of new open resources and trends in open access. Martin's article is less an inventory of resources and more a primer on the open access landscape. The author presents a concise, straightforward introduction to different categories of open access materials. She sees this as a way to provide a value-added service to patrons without detriment to library departments. Martin includes a discussion of open textbooks and educational resources in addition to open access journal content. These additional types of open access materials should not be discounted in the ILL environment as this author expects we will begin seeing requests for such items in the near future.

The literature discussing the use of open access materials to fulfill ILL requests is limited and largely focuses on educating ILL practitioners about open access and providing suggested resources for locating open access materials. This paper will present data on the use of open access materials in interlibrary loan and an updated survey of commonly used open access resources.

Overview of institution and ILL operations

IUPUI is part of the Indiana University system, which comprises eight campuses across the state of Indiana. IUPUI also has its own extension campus, Indiana University-Purdue University Columbus, located approximately one hour south of Indianapolis in Columbus, Indiana. All Indiana University campus libraries collaborate in a number of ways including a shared online catalogue and a remote circulation service.

IUPUI University Library Interlibrary Services department serves the faculty, staff, and students of the Schools of Art & Design, Business, Education, Engineering & Technology, Health & Rehabilitation Sciences, Informatics, Journalism, Liberal Arts, Library & Information Science, Nursing, Physical Education & Tourism Management, Public & Environmental Affairs, Science, and Social Work as well as University College. The campus's professional schools are each served by their own library. The Interlibrary Services (ILS) department consists of ½ FTE librarian, 2 FTE staff members, and approximately 3 FTE student employees. The University Library is an OCLC supplier, participates in RapidILL, and uses the OCLC ILLiad ILL management system.

In Fall 2008, the ILS department began offering an Article Delivery Service to deliver articles electronically from the library's print collection to patrons. Prior to Fall 2008, only distance education students qualified for this service. This new service contributed to a large increase in requests in fiscal year (FY) 2009 as compared with the previous year. In FY 2008, ILS received a total of 16,638 ILL borrowing requests. In FY 2009, the first year of the Article Delivery Service, the department saw a 28% increase in borrowing requests received, with total submissions reaching 23,210.

Total ILL borrowing requests increased slightly in FY 2010 to 23,422 submissions, of which 21,308 (91%) were filled through traditional interlibrary loan, the Article Delivery Service, or remote circulation between other Indiana University campus libraries. In FY 2011, requests declined 6% from the previous year, with 22,098 borrowing

requests received and 20,093 (91%) requests filled through interlibrary loan, the Article Delivery Service, or remote circulation.

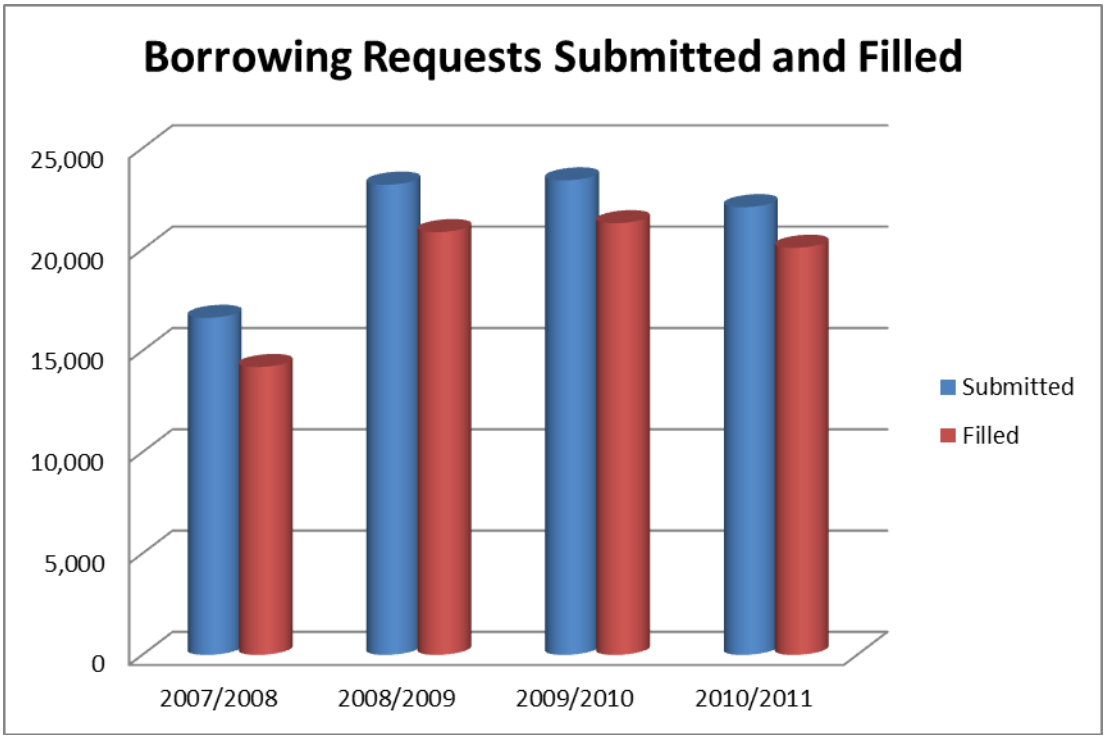

Figure 1 ILL borrowing requests submitted and filled

Open access ILL workflow

IUPUI University Library uses OCLC ILLiad as its ILL management system, which provides greater automation and customization of ILL procedures than OCLC WorldCat Resource Sharing (Weible, 2011, p. 95). The ability to create custom e-mails, queues, and routing rules within ILLiad makes it easy to process and track open access requests. Two custom queues, "Awaiting Open Access Searching" and "Awaiting Thesis Processing", prompt ILS staff to search for open access materials before referring the request to a potential supplier via OCLC. Items published in the US prior to 1923 fall into the public domain. In IUPUI University Library's ILLiad system, patron requests containing a pre-1923 publication date are therefore automatically routed to the "Awaiting Open Access Searching" queue regardless of document type. Staff members then use ILLiad add-ons to search the HathiTrust, Internet Archive, and Google for freely available electronic copies. Likewise all requests with the document type thesis or containing the phrase "Dissertation Abstracts" are automatically routed to the "Awaiting Thesis Processing" queue. Staff members then search the ProQuest Dissertations & Theses database for subscription access and the Internet for the existence of an ETD if not accessible through ProQuest.

Staff members search OCLC first for all requests that fall outside of these two queues. OCLC holdings information prompts ILL staff to verify local holdings and, in the case of returnables, the library holdings of other Indiana University campuses. Requests for returnable items held locally or within the Indiana University library system are transferred to the remote circulation service for processing. Through the Article Delivery Service, locally owned non-returnable items are delivered electronically to patrons through the document delivery module in OCLC ILLiad. If an item is not available locally or through the remote circulation service, the staff member proceeds with requesting the item through OCLC unless it is apparent from the OCLC record that the material is open access. The staff member might also locate an open access item in the course of citation verification. Extensive searching for open access options does not occur for these requests until all other borrowing options have been exhausted.

When an open access document is located, the staff member enters information into the request form including the URL in the Call Number field, “open” or “etds” (depending on the document type) in the Lender field, and changes the System ID to OTH. The Lender field entry allows for internal tracking of requests filled using open access materials and ETDs. She then saves the PDF to the ILLiad web server and sends the patron a custom e-mail notifying him of the document’s availability. The URL located in the Call Number field is automatically inserted in the e-mail for the patron’s reference. The email also informs the patron that the document was found freely available on the Internet. IUPUI University Library chooses to deliver open access documents to patrons for their convenience. In acknowledgement of the staff time and effort required to locate and deliver these materials, open access requests are counted towards the department’s fill rate. If a library preferred not to deliver the document to a user, the staff member instead could choose to send the URL to the patron and complete the request without actually posting the document to the user’s account, or cancel the borrowing request and provide the URL in the cancellation e-mail.

Open access borrowing requests and resources

In FY 2010, 318 borrowing requests were filled with open access materials. The following year, 487 were filled for an increase of 35%. Though these requests account for a small percentage of the whole, many of them would have been difficult to fill through traditional means and would have a negative impact on the department’s overall fill rate. Over two years, borrowing these 805 items through traditional ILL carries the potential cost of $14,087.50 based on Mary Jackson’s 2004 cost estimate of $17.50 per borrowing transaction (Jackson, 2004, p. 31). Assuming borrowing all of these items would even be possible, the cost to potential lenders would be approximately $7,462.35 based on Jackson’s mean lending cost of $9.27 per transaction (Jackson, 2004, p. 31). Though there are minor costs associated with processing open access requests, this represents a significant savings for the library and our lending partners.

The 805 open access requests received during the two-year period under study represent a wide range of material types. The most frequent was journal articles (405), followed by books and book chapters (136), theses and dissertations (108), conference papers (104), reports (44), government documents and patents (5), and other miscellaneous materials (3). This ranking remains largely the same when considering individual years, with only theses and dissertations and conference papers trading places in FY 2011. A discussion of the top four document types follows.

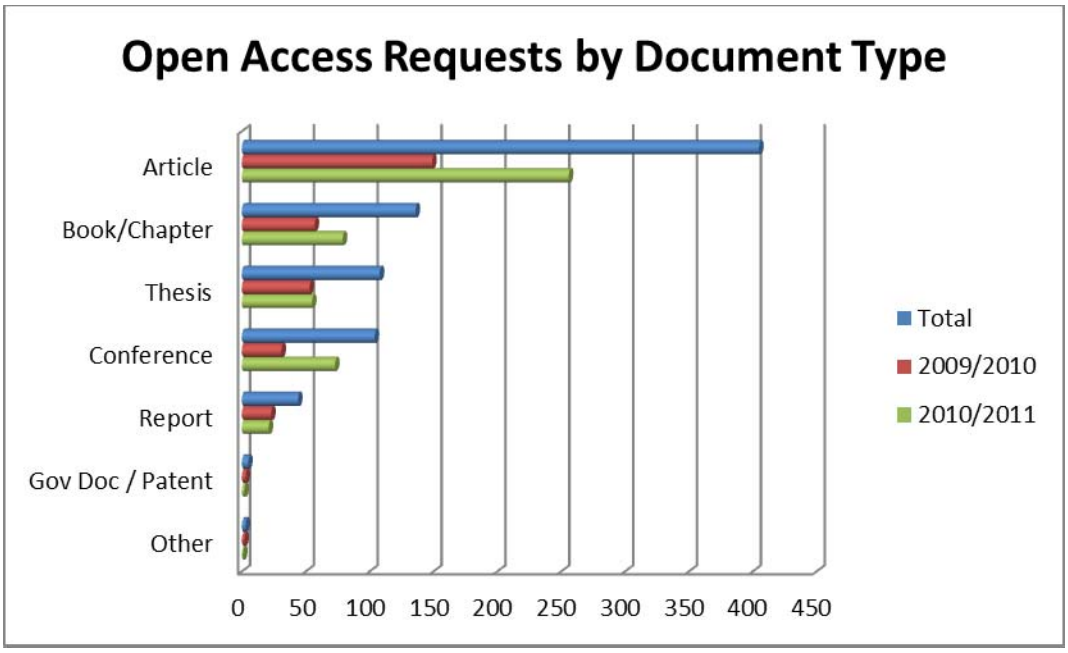

Figure 2 Open access requests by document type

Article requests

Open access article requests were filled through a number of sources, but most were located on the websites of open access journals or in digital repositories. Search tools commonly used include Google Scholar, IUPUI University Library's e-journal portal, and OCLC. The library uses Serials Solutions as its vendor for electronic resource management. Within the administrative module, it is possible to activate "subscriptions" to various open access journal collections. Thanks to this feature, resources such as PubMed Central and the Directory of Open Access Journals as well as various collections of freely accessible journal titles are linked through the library's e-journal portal. MARC records are generated for the titles in these open access collections and added to the library catalogue, thus providing an additional access point. The ILS staff regularly use the e-journal portal to determine whether requested items are held electronically. The inclusion of open access collections in the e-journal portal allowed staff to locate 101 open access articles. These account for one quarter of the total open access article requests received during fiscal years 2010 and 2011.

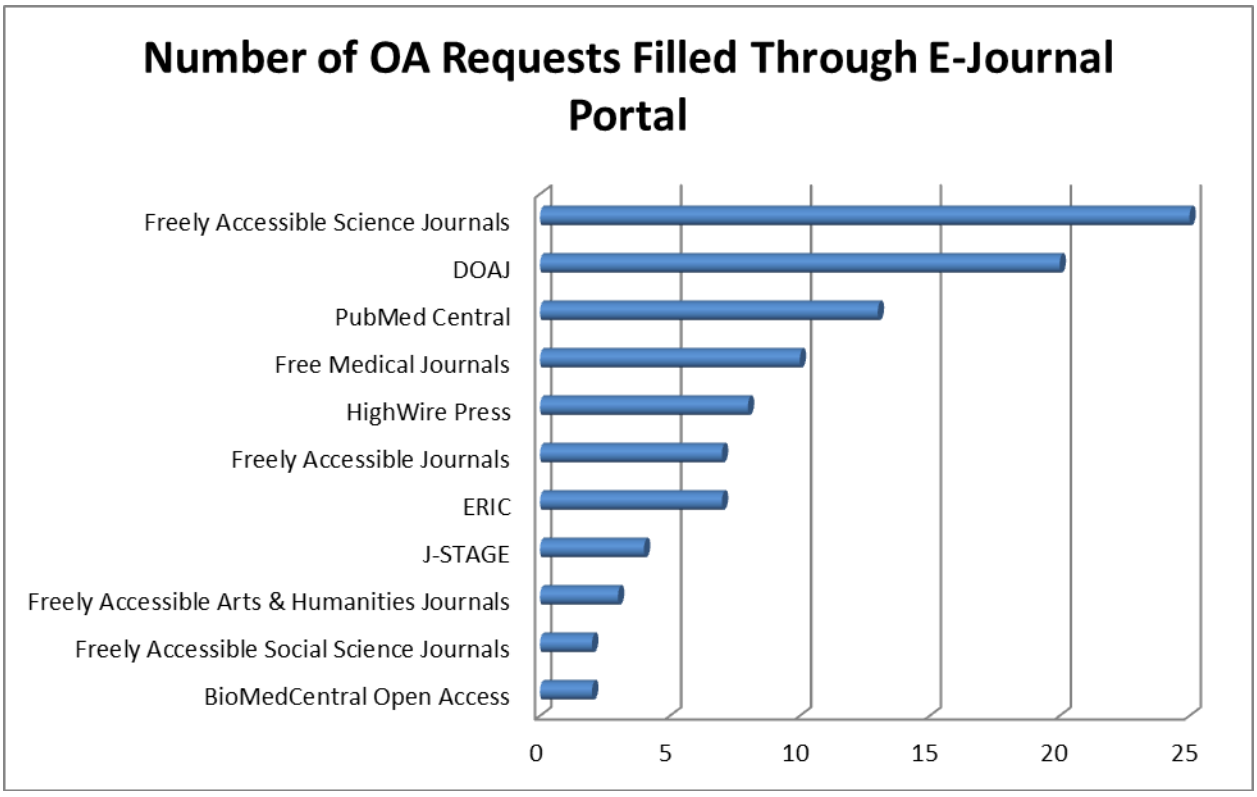

Figure 3 Number of open access requests filled through e-journal portal

Despite the wealth of open access titles included in the library's e-journal portal, 75% of open access article requests were discovered through other means. ILS staff filled an additional 81 requests using journal websites typically located through Google Scholar or through URLs present in OCLC bibliographic records. Other major sources for open access articles included university websites, institutional repositories, or US library digital collections (52); other digital repositories (51); author/faculty websites (34); organisation websites (33); and government websites (18). Though targeted searches are done for difficult requests, most of these were located with a simple Google search.

In the category "other digital repositories", the three most frequently used sites were Gallica (11), CiteSeerX (9), and arXiv.org (7). Gallica, the digital library of the Bibliothèque nationale de France, provides free access to over a million books, periodicals, manuscripts, maps, images, sound recordings, and scores. Text documents are freely available and can be downloaded as a PDF. Gallica contains a number of pre-1900 texts that would typically be difficult to borrow from a French library. CiteSeerX, a scientific literature digital library and search engine, was developed in 1997 at the NEC Research Institute and moved to Pennsylvania State University's College of

Information Science and Technology in 2003 (Pennsylvania State University, 2010). It primarily indexes computer and information science research articles. CiteSeerX provides links to download open access documents from their original locations. arXiv.org is owned and operated by Cornell University Library. It started in 1991 as a subject-based repository for preprints in physics and has since expanded to include a number of science and science-related subjects. arXiv.org now contains nearly 700,000 open access articles.

Book and book chapter requests

Books and book chapters represented 17% of total open access borrowing requests. The titles obtained were evenly distributed in terms of their publication date, ranging from the oldest published in 1582 to the most recent published in 2009. The greatest number of requests was submitted by patrons from the History department (30), followed by those from Philanthropic Studies (18) and Religious Studies (17). Most freely available books were located in Google Books (50), the Internet Archive (39), or the HathiTrust (25). IUPUI University Library utilizes the ILLiad add-ons, which provide access to various websites from within the ILLiad client, to quickly check for electronic availability of public domain books in each of these repositories.

Google Books is an online repository of digitized print materials. Though free full-text is not available for all content, Google Books does contain a large number of out of copyright monographs and journals. Google Books has a simple, user-friendly interface and is readily accessible to anyone with an Internet connection. The metadata associated with Google Books items is not always as complete or accurate as that of the Internet Archive or HathiTrust, which sometimes makes it difficult to locate an item.

Founded in 1996, the Internet Archive collaborates with a number of institutions to collect and preserve materials. It provides access to an extensive archive of moving images, audio, software, educational resources, and text and serves as home of the Wayback Machine, an archive of web pages. In addition to housing public domain documents, there is also a collection of open access documents. Text materials can be read online or downloaded as PDF, EPUB, Kindle, and various other file types.

The HathiTrust began as a collaborative digitization effort between the Committee on Institutional Cooperation (CIC) member universities and the University of California system, but is now open to other institutions. This shared digital repository currently contains over nine million volumes with nearly two and a half million volumes in the public domain. Users from member institutions can log in to the HathiTrust to download full-text PDFs of public domain materials. Other users can view the full-text online.

Thesis and dissertation requests

When processing requests for theses and dissertations, the ILL department first seeks to borrow a physical copy of the requested item. Additionally, the department will purchase PDF copies of theses from online-only institutions, such as Capella University, for all patrons. When unable to borrow, student requests for theses and dissertations are cancelled with a note telling them they can purchase a copy through ProQuest. The department will purchase a PDF copy of a dissertation if requested by faculty. However, thanks to increasing availability of electronic theses and dissertations (ETDs), the department is able to provide patrons with access to content that is often difficult to borrow.

Of the 1,119 borrowing requests for theses and dissertations during the period studied, 649 were obtained through traditional interlibrary loan. The ILS department was able to fill an additional 246 requests using remote circulation services (28), purchasing through ProQuest (110), and locating open access ETDs (108). This left 224 requests unfilled for a fill rate of 80%. Were it not for the availability of ETDs, the department's fill rate for theses and dissertations would have decreased by a full 10 percentage points.

Of the 108 ETDs obtained, only eight were written prior to 2000; an additional 21 were written between the years of 2000 and 2005, leaving the highest concentration of theses written from 2006 to 2010. The ETDs represent the scholarly work of five different countries. While most ETDs obtained were written at institutions in the US (91), ETDs from other countries were also requested by users: Canada (12), Australia (3), The Netherlands (1), and South Africa (1). Florida (15), Ohio (11), and Texas (10) led US states in the number of ETDs requested. Results drop by nearly half for the next states in line, California (6) and Virginia (6). ETDs are typically located through URLs found in OCLC records or through Google searches. Not all ETDs are catalogued separately from print, so OCLC

records for their print counterparts should be checked for URLs in addition to looking for Internet resource OCLC records.

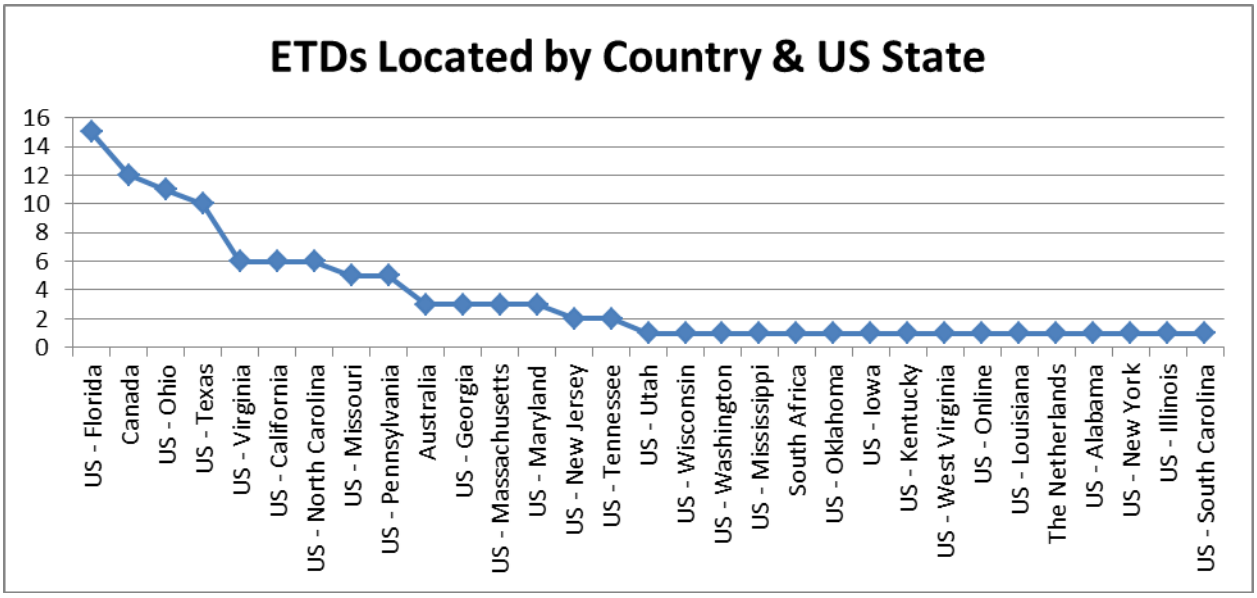

Figure 4 ETDs obtained by country & state (US)

The majority (n=83, 76.9%) of ETDs were located in the granting institution's institutional repository. Institutional repositories are created by individual academic institutions to collect, preserve, and distribute the collective research output of its faculty, staff, and students. Such repositories may include research article preprints, conference papers, presentations, working papers, ETDs, and more. Institutional repository metadata can be harvested by any organisation using the OAI-PMH protocol, such as OCLC's OAIster database. The contents of OAIster are included in OCLC WorldCat search results, which increases the visibility of institutional repository collections. Institutional repositories can also be crawled by Google, thereby making their contents discoverable through a simple Google search.

Other sources for ETDs included the OhioLINK ETD Center (10) and Theses Canada Portal (9). The OhioLINK ETD Center, a joint repository for Ohio academic institutions, was the second most heavily used source for locating ETDs. OhioLINK, or Ohio Library and Information Network, is a consortium of 88 Ohio academic libraries and the State Library of Ohio that provides statewide access to resources and resource discovery systems. In 2001, OhioLINK launched the ETD Center, which is a free, online database of theses and dissertations granted by Ohio academic institutions and includes full-text when available. Currently, 25 of the 88 OhioLINK academic institutions participate in the ETD Center.

The Theses Canada Portal is a service of the Library and Archives Canada. Though launched in 2004, most Canadian theses written since 1998 are available electronically through the portal. The Library and Archives Canada estimates the number of ETDs available is approximately 50,000.

Conference paper requests

Conference papers comprised 9.7% of total open access borrowing requests in FY 2010 and 15% in FY 2011. Of the 805 total open access requests submitted during this two-year period, 103 requests were for conference papers (12.8%). More than half (57.3%) of the conference papers located were written between 2006 and 2009. While conference or association websites are often the best source for conference papers, 44.7% (46) of open access conference paper requests were located in All Academic or the related repository, Political Research Online. All Academic is primarily a conference management tool with features including abstract management, peer review, scheduling tools, reports generator, and final program documents. The site also offers an archiving service. Archived conference papers are available free of charge. All Academic also hosts Political Research Online, a pre-print

repository project of the American Political Science Association and a consortium of similar associations. These two archives are especially strong in papers on the subject of political science.

Conclusion

In 2010, OCLC Research released a report on the findings of twelve user behaviour studies, which found that seven of the twelve provided evidence for the "increasing centrality of Google and other search engines" in the information-seeking behaviour of researchers (Connaway & Dickey, 2010, p. 27). This reliance on search engines may be a result of another common finding, the importance of speed and convenience to users (Connaway & Dickey, 2010, p. 32). The importance of convenience is reinforced in a paper by Connaway, Dickey and Radford (2011), in which they defined information source, ease of access and use, and time constraints as aspects of convenience. Significantly, the authors found that convenience is so critical to the information-seeking process that users will "readily sacrifice content for convenience" (Connaway et al., 2011, p. 27-28).

The simplicity of a Google search typically results in millions of results. It takes time and evaluative skill to process even a fraction of these for relevant and accurate information. However, users value speed and convenience most, making it virtually impossible for them to assess the full information landscape. They will make do with the first page of search engine results and may disregard library resources entirely. If access to an important information item is not immediately apparent from the point of discovery, it is unlikely the user will search extensively for access before submitting an ILL request.

ILL requests are unlikely to decrease as a result of increasing numbers of open access materials. In fact, IUPUI University Library's ILL data shows that the number of requests filled with open access materials is actually growing while overall requests hold relatively steady. As more and more materials become freely available on the Internet, users have increasing difficulty in navigating the vast information environment and the myriad options that the Library and the Internet offer for finding what they want. ILL librarians and staff have specialized search skills and knowledge of resources of which our patrons are often unaware. Users can easily discover resources, but it is often up to ILL to deliver them. ILL departments must begin utilizing open access materials to enhance service and educate users about open access.

Resources

All Academic. http://convention3.allacademic.com/one/www/research/index.php?
arXiv.org. http://arxiv.org/
CiteSeerX. http://citeseerx.ist.psu.edu/
Gallica. http://gallica.bnf.fr/
Google Books. http://books.google.com/
HathiTrust. http://www.hathitrust.org/
Internet Archive. http://www.archive.org/
OhioLINK ETD Center. http://etd.ohiolink.edu/
Political Research Online. http://convention2.allacademic.com/one/prol/prol01/
Theses Canada Portal. http://www.collectionscanada.gc.ca/thesescanada/

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Tina Baich is an Assistant Librarian at Indiana University-Purdue University Indianapolis' University Library where she has been the Interlibrary Loan Librarian since September 2006. Tina is a Member at Large on the ALA RUSA STARS Executive Committee and also serves as Chair of the ALA RUSA STARS International ILL Committee. She is especially interested in web-based interlibrary loan finding aids and the impact of open access on interlibrary loan. Tina is a graduate of the Indiana University Schools of Library & Information Science and Liberal Arts with master degrees in Library Science and Public History. Tina Baich can be contacted at cbaich@iupui.edu.