

Where Have All the Dissertations Gone? Assessing the State of a Unique Collection's Shelf (Un)availability

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ABSTRACT. A study conducted at the University of Illinois at Urbana-Champaign Library (UIUC) examined data from a random sample of PhD dissertation titles to determine the number of items missing from the portion of the collection housed in the Main Bookstacks. Results from the study indicated that a higher number of items were missing than originally estimated based on failures to find materials on the shelf. Analysis of the data resulted in recommendations to replace the titles that were missing to ensure access by future researchers to this uniquely held material. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2005 by The Haworth Press, Inc. All rights reserved.]*

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INTRODUCTION

Stewardship of a library's collection is the responsibility and charge of the librarians working with the materials contained within the collection. While book availability studies have brought to our attention the need for book inventories and collection maintenance, items within a sub-collection have not been specifically studied, nor have solutions been recommended to ensure that unique portions of a library's collection are properly maintained, and if possible, replaced.

The research produced by an institution's PhD programs is unique, original, and unless published, can often only be obtained from the library at the institution that granted the degree. Although UMI (University Microfilms, Inc.) holds over two million doctoral dissertations and master's theses, there is still a need for access to the material at the institutional level. If an institutional library only holds one circulating copy of the dissertation, it is possible that through local and interlibrary loan use the material can become lost or damaged beyond reasonable usage by the next patron. It is essential for the library to make this unique material available again to researchers. In cases where the institution ranks among the nation's top programs for a specific degree, the replacement and restoration of access to the material is imperative to continue fostering original research around the world. This is especially true considering that these top programs are educating many of the best and brightest scholars in these fields and their research should reflect the high quality of the institution's program.

The University of Illinois is one of these top research institutions and the scholarship produced by its students in the form of PhD dissertations is consulted by peers from around the world. It is especially important that the University Library continue to make this research available to other scholars. The departmental libraries that form the University's library system collect all dissertations in their areas of specialization and most have a circulating copy in addition to a preservation copy of the material.

LITERATURE REVIEW

A search on the database *Library and Information Science Abstracts (LISA)* conducted on February 3, 2005, with the term "book availability" produced a result list of fifty-nine matches when using the "quick search." In none of the matches does the literature focus on book avail-

ability studies for a sub-collection contained within the library collection as a whole, which is the focus of this study. A similar search was performed in the database *Library Literature and Information Science*. The result list for this database using a “keyword search” on February 3, 2005, was 102 matches for the term “book availability.” Although not all of the matches in the result list were relevant, the results of the searches on the database illustrate that this a popular and continuously studied topic.

Book availability studies have been conducted periodically over the past thirty years. Although Michael H. Buckland, Daniel Gore, and Paul B. Kantor studied book availability issues, they focused on the entire library collection as opposed to a specific sub-collection contained within the larger one.¹

Book availability issues in relation to interlibrary loan have been frequently studied more recently, but all focus on fill rates and reasons for failed requests.² Some of the findings in these studies relate to the book availability studies. For example, if an item is not located on the shelf, the causes are the same whether a local or interlibrary loan user is in need of the item. The results are also the same because the final outcome is that the user does not obtain access to the material through the library’s collection. Local users can attempt to obtain the material through interlibrary loan and those users who had come to the library as interlibrary loan patrons can attempt to obtain access to the title through another lending institution if the material is not unique to the collection.

RESEARCH HYPOTHESES

Results from a study previously conducted at UIUC using unfilled interlibrary loan requests determined that 161 (65.4%) of the unfilled materials were not found on the shelf.³ This number from the researched sample meant that 13.6% of all materials requested through interlibrary loan for the one month study during February 2002 were missing from the shelves.⁴ Since that study conducted by Atkins and Weible used interlibrary loan requests whereas this study focuses on the collection as a whole, specifically the PhD dissertation collection, it was assumed that the number of missing items would be lower than the 13.6% found in their study for the entire collection. This assumption was based on the fact that materials requested for interlibrary loan or local use are more frequently used and therefore would increase the possibility for materials to become missing.

The portion of missing titles for the category of PhD dissertations was estimated to be 10%. An unofficial analysis of the daily workflow of interlibrary loan requests showed that there were approximately 1 in 10 (10%) unfilled requests for PhD dissertations housed in the Main Bookstacks. This rough analysis led to the perception that a high number of dissertation titles were missing from the collection, but the 10% was still within a reasonable range when compared to the recently conducted study by Atkins and Weible. Additionally, the UIUC authored PhD dissertation collection is not used to the fullest extent or categorized as high demand titles, another factor in the lower estimate.

METHODOLOGY

A random sample of UIUC authored PhD dissertation titles was selected from the UIUC online catalog database. Only titles with a holding in the Main Bookstacks of the library were chosen, resulting in a total population of 7,386. A query run against the population found that 895 of these titles were already marked as “missing,” reducing the population of potentially available items to 6,491. The sample size of 586 provides a confidence level of 95% (+/- 3.86%). The sample was randomly created by assigning each item in the population a unique numerical identifier. Then, random numbers were generated using the tool from Microsoft’s Excel program to produce the list. Once this list was created, the list of citations was produced using the unique numerical identifier that was assigned to each title.

Once the list of citations was produced, it was then necessary to conduct the physical shelf check for the material. A student who was familiar with the Main Bookstacks was hired to complete the data collection portion of the study. Each title was first searched in the Online Public Access Catalog (OPAC) to determine its call number. Titles from the list in the sample contained only items that were marked in the catalog as “on shelf” and should therefore be physically located on the shelf.

The student was trained and given a refresher tour of areas in the Main Bookstacks where the dissertations are shelved. The student took the list of materials to be searched and conducted shelf checks according to the call number and location of each title. For materials that were not in their exact location, the student was instructed to look a half shelf before and a half shelf after the correct location. This is standard procedure for interlibrary loan retrieval students and often results in locating items that are slightly mis-shelved. After the physical searches for the

material were completed, the student used the following codes to indicate the results of the search: F = found, NOS = not on shelf, M = slightly mis-shelved, and entered them into an Excel spreadsheet for analysis. The student spent a total of 35 hours for the three phases of the study: looking titles up in the OPAC, physically searching for materials on the shelf, and entering results into the spreadsheet.

RESULTS

The study found that out of the sample of 586 items, 545 (93.00%) were found on the shelf where they belonged in call number order. Twelve (2.05%) of the titles were slightly mis-shelved and 29 (4.95%) were not on the shelf or missing from the collection. Upon initial impression, the number of materials that were not found on the shelf (4.95%) seem significantly lower than the hypothetically predicted 10% as discussed earlier (see Table 1). However, this number actually represents an additional 4.95% of missing titles since 895 (12.12%) of the 7,386 items were already identified as having a status of “missing” in the OPAC. The 12.12% when combined with the additional 4.95% totals 17.07%, which is the total amount of the UIUC authored dissertation collection found to be missing after the study was completed.

Not Found

For titles that were not located on the shelf, 8 (27.59%) were dissertations from the discipline of education and 5 (17.24%) were from the discipline of economics. The call numbers for the subject matter education are located on Deck 10 East of the Main Bookstacks and the call numbers for the subject matter economics are housed on Deck 6 East. In the study previously conducted by Atkins and Weible, Deck 10 East was measured at 96.1% of shelving capacity and Deck 6 East was recorded

TABLE 1. Status of Materials and Results of the Physical Search

STATUS	NUMBER	PERCENTAGE
Found	545	93.00%
Slightly Mis-shelved	12	2.05%
Not on the Shelf	29	4.95%

at 102.3% of shelving capacity.⁵ In 1965, Metcalf recommended that 86% of capacity is considered full and anything above that amount creates a situation of overcrowding.⁶ Deck 10 East also ranked in the top five decks for missing materials in the Atkins and Weible study with a ranking of second place, so it was not surprising to see the highly used subject matter under the broad term of education as ranking first in missing materials in this study.⁷

Mis-shelved

The percentage for mis-shelved materials was 2.05% or 12 items from the sample. This was a slightly higher percentage than the “less than 1% of all requests for the month” from the Atkins and Weible study.⁸ Again, this figure is well within the operating parameters of the Main Bookstacks and is subject to some slippage depending on the study and the current overcrowding situation in any particular area of a Deck in the Main Bookstacks.

Found

A total of 545 (93.00%) of the UIUC PhD dissertation titles from the sample were found on the shelf in the correct location. If more care had been taken in the shelving process, up to 95% of the materials could have been located with ease.

CONCLUSIONS AND RECOMMENDATIONS

Although the portion of titles for UIUC PhD dissertations from the sample that were not found on the shelf was 4.95%, the fact still remains that these titles constitute a unique portion of the library’s collection. To meet the library’s obligation as stewards of this collection, a program should be implemented to replace these titles to make them available to researchers. First, a list of missing titles was produced from the online catalog to get a general idea of the minimum number of missing items (895). The online catalog only shows titles that have previously been determined as missing. Additionally, this list will only contain titles cataloged since 1977, so dissertations with an older publication date are at risk of being missed. With the minimum number of titles on the list produced from the online catalog, cost estimates can be made to determine if purchasing the titles available from UMI would be cost effective for

beginning to replace this unique portion of the collection. For example, according to UMI's web site, Academic institutions are charged \$39.00 for a microfilm/fiche, \$45.00 for softcover paper, and \$56.00 for hardcover paper dissertations.⁹ If 1,000 items in the collection were replaced with microfilm copies the library would need to budget \$39,000. Criteria as to which dissertations should be replaced may have to be set in order to reduce the costs implementing this type of solution.

For older titles the only remaining copy is often held in microfilm or manuscript format in the Rare Book and Special Collections Library. Replacement of these titles can be made by having a circulating copy produced and reinstated into the collection. Since UIUC no longer has the capability or equipment to duplicate microfilm, this will complicate efforts to create circulating copies of the dissertations.

The estimated 10% for missing UIUC authored PhD titles was too low and the actual amount is over 17%, indicating that the library's performance was worse than expected. It is also important to note that this study only focuses on the library's operations and does not take other factors into account such as the item was checked out or that the patron might be unable to find the material even when it is shelved in the correct location. The loss rate of 17% for this sub-collection is extremely high and illustrates the importance of keeping a copy of these unique materials in the Rare Book and Special Collections Library so that all access is not completely lost as a consequence of making the items available for normal use.

FUTURE RESEARCH

The author plans to conduct another study that will focus on the PhD dissertation titles that are requested through interlibrary loan. Conducting research specifically towards requested materials will enable a direct comparison between the Atkins and Weible study of missing materials requested through interlibrary loan and the sub-collection of PhD dissertations. Missing titles that are high use for research purposes can be given higher priority for replacement as outlined above in the "Conclusions and Recommendations" section of this paper.

Additional study will focus on the sub-collection of Master's theses held in the library's collection. Since these titles are not submitted to the UMI microfilming service, efforts to replace missing titles would depend entirely on the completeness of the holdings in the Rare Book and Special Collections Library.

NOTES

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2. David J. Gregory and Wayne A. Pedersen, "Book Availability Revisited: Turn-around Time for Recalls versus Interlibrary Loans," *College & Research Libraries* 64 (July 2003): 283-99; Stephanie S. Atkins and Cherié L. Weible, "Needles in a Haystack: Using Interlibrary Loan Data to Identify Materials Missing from a Library's Collection," *Library Collections, Acquisitions, and Technical Services* 27 (2003): 187-202; Joan Stein, "Measuring the Performance of ILL and Document Supply: 1986 to 1998," *Performance Measurement and Metrics* 2 (2001): 11-72.
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4. *Ibid.*
5. *Ibid.*, 191.
6. Keyes DeWitt Metcalf, *Planning Academic and Research Library Buildings* (New York: McGraw-Hill, 1965), 155.
7. Atkins and Weible, "Needles in a Haystack," 197.
8. *Ibid.*, 195.
9. University Microfilms International. ProQuest Information and Learning Company. Web site accessed October 5, 2004. <http://www.il.proquest.com/umi/pqdd-FAQ/>.

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