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Measuring and Applying Data about Users in the Seton Hall Library

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Abstract

We present data on how faculty and students at Seton Hall University use scholarly articles and books, how the library can present its findings to stakeholders, and how librarians can learn from these findings to better meet user needs.   The data were gathered using questionnaire surveys of university faculty, graduate students, and undergraduate students as part of the IMLS Lib-Value project and based on Tenopir and King Studies conducted since 1977. Many questions used the critical incident of the last article and book reading to enable analysis of the characteristics of readings, in addition to characteristics of readers. Seton Hall's e-journal collection is vital to its users, supporting faculty research and teaching and student coursework. However, high use of books from non-library sources suggests some deficiencies in the collection. Findings show an opportunity to brand library material to clearly distinguish it from what is perceived as 'free on the web', examine use of both print and e-books, and work with professors to increase student awareness and use of library resources.

Introduction

Academic libraries are faced with difficult economic times and university budget cuts, and their value to the university's wider goals and mission is increasingly questioned. The Value, Outcome, and Return on Investment of Academic Libraries project (Lib-Value) is a three-year study funded by the Institute of Museum and Library Services (IMLS). Part of the project seeks to measure the value of the library's provision of access to scholarly materials by examining scholarly reading patterns and comparing use patterns of the library-provided materials with the use of scholarly materials accessed from other sources. Measuring the use and outcomes of scholarly reading demonstrates the value of library collections and helps librarians make decisions about collections and services.

This paper presents data on how faculty, graduate students, and undergraduate students at Seton Hall University (SHU) locate, obtain, read, and use scholarly articles and books. The paper highlights two areas of importance for librarians and its stakeholders. First, it demonstrates a useful method for measuring library value. Second, it shows how a university library can apply survey findings to its situation by informing collection development and budget allocation. Seton Hall University is not alone in its struggle for funding during nationwide budget cuts coinciding with rising journal prices, and is an example of how academic libraries can express their value and learn how to best meet user needs.

Previous Studies and Methodology

The 2012 study is based on Tenopir and King reading surveys conducted over the past thirty-five years in academic and non-academic settings (Tenopir, 2003; Tenopir et al., 2010,

Tenopir and Volentine, 2012). Tenopir and King (2000) and King and Tenopir (2001) summarize reading patterns of faculty members through the 1990s, and provide extensive literature reviews and serve as background for the data presented in this paper. Other multi-university studies focus on how faculty members use electronic journals, online resources, and libraries (Healy et al., 2002). Recent studies also found that undergraduate students value electronic access for their coursework (Madden and Jones, 2002; Tenopir et al., 2003). E-journals are now an integral part of the academic process, and the number of articles read continues to increase as electronic journals become more widely available (Tenopir et al., 2010).

The 2012 surveys examine the reading of scholarly articles, books and book chapters, and the use and creation of social media. Faculty, graduate students, and undergraduates each received a separate survey with a consistent core of questions, but graduate and undergraduate students received shorter surveys. Several reader-related questions focus on the demographics of the respondent. The reading-related questions are based on the "critical incident technique" (Flanagan, 1954), where the respondent's last reading is used as the "critical" incident of reading (Griffiths and King, 1991). Respondents should have a better memory of this specific reading rather than reflecting on multiple readings over a longer period of time. While the last reading may not always be typical, it allows us to find details and patterns of reading and use. For the full report, a copy of the survey instrument or more information on previous studies and methodology please visit: http://libvalue.cci.utk.edu/.

In March 2012, a Seton Hall librarian sent separate e-mail messages to approximately 450 faculty members, 3,300 graduate students, and 5,000 undergraduate students. The message included an embedded link to a survey housed on the University of Tennessee's

server. We received 84 faculty responses for a response rate 18.8%, 144 graduate student

responses for a response rate of 4.4%, and 149 undergraduate student responses for a

response rate of 2.9%. The humanities were somewhat under-represented, but the distribution

of responses by faculty rank, gender and subject area did not differ significantly from expected

based on information in the 2010-11 SHU fact book (http://www.shu.edu/offices/institutional-

research-fact-book.cfm). We assume the results are representative of the Seton Hall

population as a whole, but with low response rates we realize respondents who use the library

more on average may be more likely to have responded.

Results

Total Amount of Article and Book Reading

An initial step in exploring reading of journal articles and books or book chapters is

determining the typical number read in the past month. A reading from an article can include

those found in journal issues, websites, or separate copies such as preprints, reprints, and other

electronic or paper copies, and a reading from a book or book chapter can include classroom

text, scholarly, or review books read in print or electronic format. We defined reading as going

beyond the table of contents, title, and abstract to the body of the article or book.

The average SHU faculty member read 22 articles in the past month; graduate students

read 23 articles and undergraduates read 15. Faculty and graduate students reported reading

six books, while undergraduates read only four books or book chapters per month. The findings

illustrate the high faculty and student demand for scholarly articles, and the importance of

providing access to them.

Age of Article Reading

The following questions focus on the last reading ('critical incident'). We asked for the year the last article reading was published. Article readings are skewed toward recent publications. Over half of the article readings by faculty, 42% by graduate students and 43% by undergraduates are from articles less than 18 months old. However older articles also play an important role in faculty and student work. Undergraduates read the most articles over ten years old (20%). Graduate students report only 11% of readings over ten years old and faculty members report 14%. The findings suggest that although current online subscriptions are critical (and lengthy publisher embargoes are likely problematic), electronic back files may also be a good investment.

How respondents obtain the last article reading

We asked where respondents obtained their last article reading. The library is the most frequent source, especially for faculty, with 44% of their last article readings from a library subscription. However, while 26% of the last article readings by graduate students are from the library, another 26% are reported as from their "school or department". Among undergraduates, 27% reported that their last article reading was obtained from the library and 27% reported it came from a "free web journal". Only 6% of reading by graduate students and 4% by undergraduates are obtained from a personal subscription, but 19% of article readings by faculty are from a personal subscription. The majority of the readings by faculty and students

came from an e-resource, and over 95% of the articles obtained from the library are from an electronic subscription.

These findings show the importance of the library in providing access to online articles, but also raise the issue of whether users can differentiate between the library's e-resources and what is "free on the web". When users access an article seamlessly through the library's Discovery Service or a portal such as Google Scholar, they may not realize that the full text of the article is only available because of a library subscription. Many also did not seem to differentiate between a library subscription and a school or department subscription. For our analysis we combined readings from the library and school/department subscriptions because Seton Hall University has virtually no subscriptions outside the library.

How respondents obtain the last book reading

Patterns of obtaining a book differ strongly from patterns of obtaining an article. Faculty, graduate students, and undergraduate students report that they purchase their last book reading far more frequently than they obtain it from the library. Forty percent of faculty purchased their last book reading, 29% obtained it from publishers and only 13% obtained it from the library. In addition, faculty members are more likely to use interlibrary loan (13%) than graduate students (2%) or undergraduate students (3%). The high proportion of faculty and students who purchase books reading may indicate a culture of individual book ownership, and/or that the most recent book reading was a textbook.   However, the rate of interlibrary loan use by faculty suggests there are unfulfilled needs for books. Electronic books account for few book readings by faculty (11%), graduate students (15%) or undergraduate students (17%).

Principal purpose of article and book reading

An important part of the survey considers the purpose, value, and outcomes of readings. We asked for what principal purpose did you use or plan to use the information obtained from the last article and what principal purpose did you use or plan to use the information obtained from the last book you read. SHU Faculty members devote most of their time to research and teaching, and their readings support their main work activities. The majority of article readings (76%) and book readings (86%) by faculty members support their research, writing and teaching activities. While the library may not be the primary source of book readings for faculty, book readings for research and writing are more likely to be obtained from the library collection than from another source. Nearly two-thirds (63%) of faculty book readings for research and writing are obtained from a library collection, illustrating the library's integral role in the university's core activities. In addition, faculty members consider over 70% of the articles obtained from the library to be important to essential to their principal purpose.

Readings by students primarily facilitate their course work. Half of article readings by graduate students and 55% by undergraduate students are read to help complete a course assignment or a paper (not specifically assigned). On the other hand, book readings are more likely to be required readings (74% for undergraduate students and 49% by graduate students). None of the students' required book readings are obtained from the library collection; instead, graduate students and undergraduate students primarily purchase the required books. Library-

provided readings are more likely to help complete a course assignment or paper, or work on a thesis or dissertation.

Discussion

Implications for Seton Hall and Conclusions

The scholarly reading survey proved to be a useful tool in helping demonstrate the value of SHU library resources, especially online journals and databases.   It is clear that library resources support both student work and faculty research and teaching, and are well aligned with the university's overall goals and mission. The fact that over half (54%) of articles read by faculty supported their research and writing is a particularly strong point, given the university's strong emphasis on faculty scholarship. We are planning to use these very positive results to support our case for additional funding for library resources, including allowance for inflation. Although the findings emphasize the importance of current content, the use of older journals was higher than we expected. Part of this may be because undergraduate students, the largest users of older articles, do not pay attention to publication dates. This is something we can stress more often during our library instruction and reference work. However the relatively high use of older articles by faculty and graduate students and the potential value of purchasing electronic back files was a welcome surprise. Outright purchase would avoid commitment to ever-increasing annual subscriptions, and allow us to discard seldom-used print journals that occupy valuable library space.

The survey also helped us identify some weaknesses and issues that we are in the process of addressing. Many students reported that their resources come from their school or

department or are "free on the web". It is highly likely that most of these resources are provided by the library but students are not aware of it.   As a result, we have taken steps to include branding of library materials at both the search results and article level for EBSCO Discovery Service and individual database vendors. These steps are consistent with a recent university-wide directive to improve branding of university pages and services.

The survey indicated relatively low use of library books, with a strong trend for both students and faculty to purchase personal copies of books or borrow them from friends or colleagues. This is consistent with the findings of a recent study of book circulation that indicated relatively low book circulation rates (Rose-Wiles, in press). One reason for this may be that the last book read, especially for students, was quite likely a textbook or other required reading. The high proportion of books that faculty obtain from publishers may reflect the practice of providing free desk or review copies, but may also indicate a growing trend for publishers to aggressively market their products directly to faculty. Informal conversations with faculty and senior students indicate that many prefer to own a copy of many books rather than borrow them from the library. However, our results may also indicate a poor fit between library book collections and patron needs, difficulty in finding current materials, and/or a culture in which the library is not the primary source for books.

As a result of the findings, we have undertaken several projects, including a wide-scale weeding of older, low use material, shift of books from reference collection to circulating collection. We are also collaborating more closely with teaching faculty in terms of requesting syllabi, statements of research interest, and donations of recent or current text books to place on reserve. We have invested in a "patron driven acquisition" e-book plan to improve the

available collection without a large upfront investment, and plan to subscribe to several large e-book collections. The survey results confirm our PDA experience that e-books are not heavily used by faculty or students, but that use is gradually increasing.

The findings from the readership survey provided valuable information, and the results are an important step for improving our library collections and showing our stakeholders the value of the SHU library. Faculty members, graduate students, and undergraduate students are profuse readers of journal articles and scholarly books, and the library is an important resource for them. Each group has slightly different reading patterns, but each still relies on the library's resources throughout the discovery and obtaining processes. By expanding the amount of resources they have available through the e-collections, branding its e-materials, and re-allocating its physical collections, the library can further student and faculty development and improve the quality of scholarly work at the university.

Bibliography

Flanagan, J.C. (1954). The Critical Incident Technique. *Psychological Bulletin,* 52 (4), 327-358.

Griffiths, J.M. & King, D.W. (1991). *A Manual on the Evaluation of Information Centers and Services: NATO, AGARD.* New York: American Institute of Aeronautics and Astronautics.

Healy, L.W., Dagar, L., and Wilkie, K.M. (2002). Custom Report Prepared for the Digital Library Federation/Council on Library and Information Resources. Burlingame, CA: Outsell.

King, D. W. & Tenopir, C. (2001). Using and Reading Scholarly Literature. In M. Williams (Eds.), *Annual Review of Information Science and Technology 34*, 423-477. Medford, NJ: Information Today, Inc.

Madden, M. & Jones, S. (2002). The Internet Goes to College. *The Pew Internet & American Life Project*. Retrieved from: http://www.pewinternet.org/reports/2002/The-Internet-Goes-to-College.aspx.

Rose-Wiles, L.M. (in press). Are print books dead? An investigation of book circulation at a mid-sized academic library. *Technical Services Quarterly*, 30(2).

Tenopir, C. (2003). *Increasing Effective Student Use of the Scientific Journal Literature: Phase 1 Final Report, Volumes 1 and 2.* Retrieved from: http://web.utk.edu/~tenopir/ nsf/presentations.html

Tenopir, C., Pollard, R., Wang, P., Greene, D., Kline, E., & Krummen, J. (2003). *Undergraduate science students and electronic scholarly journals.* Proceedings of the ASIST 2003 Annual Conference, Long Beach, CA.

Tenopir, C., Wilson, C.S., Vakkari, P., Talja, S., & King, D.W. (2010). Cross Country Comparison of Scholarly E-Reading Patterns in Australia, Finland and the United States. *Australian Academic & Research Libraries*, 41(2), 26-41.

Tenopir, C. & King, D.W. (2000). *Towards Electronic Journals: Realities for Scientists, Librarians, and Publishers.* Washington, D.C.: Special Libraries Association.

Tenopir, C., Volentine, R., & King, D.W. (2012). *UK Scholarly Reading and the Value of Library Resources: Summary Results of the Study Conducted Spring 2011*. Retrieved from: http://www.jisc-collections.ac.uk/ Reports/ukscholarlyreadingreport/.