

Collection analysis outcomes in an academic library

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Abstract

Purpose – The intent of this article is to illustrate outcomes and results of a collection analysis done by a smaller academic library.

Design/methodology/approach – The collection was evaluated using an online analysis tool combined with a physical inventory of the collection.

Findings – Peer group comparisons revealed some of the problems with this particular collection were also widespread among the comparison libraries. The value of the e-book collection to patrons was clear: not only did e-books provide resources to remote students; they help compensate for shortfalls in the print collection.

Practical implications – The catalog more accurately reflects what is on the shelf and also what is reported to OCLC. Access to the collection has been improved and enhanced. Steps were taken to refocus the library's collection development procedures and management. The changes made have led to increased faculty involvement in selection and a more balanced, more comprehensive collection management plan.

Originality/value – For any library considering whether they can or should do an analysis, the article illustrates that the benefits are well worth the time and expense. The analysis had a positive impact on collection development and management.

Keywords Collections management, Academic staff, User interfaces, Data analysis, Academic libraries

Paper type Case study

Introduction

Determining whether a library's collection meets the needs of the user and the educational goals of the institution should be considered part of the core mission of the library. Academic libraries exist in order to "work with other members of their institutional communities to participate in, support, and achieve the educational mission of their institutions" (ACRL, 2003). If the library does not critically analyze its collection in order to determine how well it is supporting the mission of the university, then the purpose of the library's existence could be called into question.

Effective collection analysis and assessment provides quantitative and qualitative data for evaluating the usefulness and utility of a library's holdings. It assists with determining budget requirements by focusing attention on how well the library's collections in specific areas support the needs of the users and the needs of the institution. It also points out whether the institution's investment in the collection is being managed responsibly.

The aim of assessment is to determine how well the collection supports the goals, needs, and mission of the library or parent organization. The collection (both locally held and remotely accessed materials) is assessed in the local context. Evaluation seeks to examine or describe collections either in their own terms or in relation to other collections and checking mechanisms, such as lists. Both evaluation and assessment provide a better understanding of the collection and the user community (Johnson, 2004).

Conducting a collection analysis can be expensive, time-consuming and labor intensive, but it is well worth the

investment. Due to the many changes affecting modern libraries, it is important that librarians are aware of their library's holdings. A collection analysis can educate current and new library staff about the collection, provide better data on which to determine collection development priorities for budget planning purposes, point out cataloging issues, and help the reference librarians better support and assist with the patron's information search. "Efficient use of budgets, shelves, staff, and information seekers' searching time – whether online or in the stacks – are a few of the less often articulated reasons to evaluate collections" (Agee, 2005). Collection analysis also allows for better management of resources, especially in fiscally lean times, and provides library administration with documented evidence on the stewardship of the library.

The key for academic librarians is to think in terms of their role in overall institutional effectiveness. Accountability is a two-edged sword. It promotes the library and the librarians' visibility on campus and supports the academic mission. However, it also brings more responsibility and an obligation to quantitatively document just exactly how the library is fulfilling the purpose and objectives of the institution. Thus, for the librarian, collection assessment is the most integral component of the accreditation process. With its companion collection management and development policy, it represents institutional effectiveness in microcosm (Henderson *et al.*, 1993).

Background to the study

Saint Leo University's Cannon Memorial Library supports an institution serving more than 14,000 students. Saint Leo University is a unique institution, with a small traditional

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campus-based student body, and a large distance learning program. Many of the students are not within driving distance. Distance education programs, which use videoconferencing, online programs and offerings, and weekend and evening programs are integral to the University. It is a challenge to provide library resources and services to such a diverse and dispersed student population.

As part of the university's 2004/2005 Institutional Effectiveness Plan (IEP), the library director proposed a collection evaluation to evaluate whether the library met the Southern Association of Colleges and Schools standards and the American Library Association's *Standards for Libraries in Higher Education*, approved by the ACRL Board of Directors in 2004 (ACRL, 2004). The ACRL standards encourage comparison with peer institutions, provide statements of good library practice, and suggest ways to assess that practice in the context of the institution's priorities.

When first considering a collection analysis, budget, staffing and the types of tools and data collection techniques were considered. The library staff is not large, and it was understood that the study would be primarily quantitative in nature rather than qualitative. Qualitative collection analysis would have involved a considerably larger investment in time and staff, (focus groups, citation analysis collected from student papers, surveys, etc.) and, therefore, it was determined to focus on quantitative tools available.

The collection analysis tool selected was the OCLC WorldCat Collection Analysis tool. OCLC developed the WorldCat Collection Analysis program at just the right time for Saint Leo. A collection analysis had not been done for quite a number of years, and it was important to determine how well the library was supporting current program offerings and educational curricula. The library's book collection consists of almost 100,000 print titles and approximately 53,000 electronic titles.

As a preliminary step in the process, two technical services librarians were hired in 2005 to finish a retrospective conversion process, implement systematic authority control, and determine the methodologies required for collections evaluation and funding. Due to discrepancies between books on the shelf, books cataloged, and holdings reported to OCLC, it was decided that a thorough inventory of the collection was going to be necessary before the retrospective conversion could be continued. The inventory process has taken longer than anticipated, with two librarians spending approximately 25 per cent of their time on this for three years. In an academic library, summers are often devoted to special projects. In the summer and fall of 2007, the team spent 60-70 per cent of their time doing collection analysis.

In 2006, Cannon Memorial Library contracted with OCLC for WorldCat Collection Analysis (WCA) for one year, even though the inventory was still ongoing and had not yet been completed. WCA provided information about both print and electronic holdings. The subscription price was based on the number of library holdings in OCLC. Most, but not all, of our e-books have been updated in OCLC. Comparison of the library's collection to peer libraries and authoritative lists was an important part of the process. The objective, quantitative results of the analysis validated subjective speculation and targeted observations performed on selected sections of the collection.

Methodology

In preparation for the evaluation, a shelf list was generated and an inventory of holdings for flagship programs – Criminal Justice, Education, Psychology, and Sport Business – was completed. Every book in the collection was physically removed from the shelf and checked against bibliographic records in the Voyager catalog and in WorldCat. After finishing the inventory of the collections supporting the flagship programs, the remainder of the collection was also inventoried. Corrections were made as needed and records enhanced where possible. "Collection evaluation always begins with a complete, up-to-date inventory" (Intner, 2003), since "physical assessment provides a good indicator of the condition of the overall collection..." (Agee, 2005). The assessment team also participated in several online seminars presented by OCLC in order to learn how the OCLC conspectus software operated.

The assessment team gathered data and generated graphs of publication dates for books and e-books. Some graphs were printed directly from WCA and others were printed from data exported from OCLC into an Excel spreadsheet. Because of the irregular way the statistics were displayed in WCA, and because of the small number of books in the library's collection published before 1950, earlier years were not included in the analysis. Using a weighted average formula, the approximate average publication dates for print and e-books in the individual disciplines were calculated.

Holdings were compared to two authoritative lists – *Books for College Libraries* (ALA, 1988) and *Choice Outstanding Academic Titles* (ACRL) – in order to generate a list of recommended titles that had not been purchased by SLU. Holdings were then compared to holdings from similar institutions selected by the assessment team. Saint Leo University has a considerable off-campus student body, a large religion collection and a growing theology program. It was impossible to construct true peer groups from the predefined lists provided; Saint Leo was too small to be classified with such institutions as Harvard, and too diverse to be compared to other smaller and medium liberal arts institutions. As an alternative, four groups of five libraries were created from institutions comparable in size to the university's campus student body:

- 1 ICUF (Independent Colleges and Universities of Florida) member institutions.
- 2 Small Catholic colleges and universities.
- 3 Colleges with accredited sport business/management programs.
- 4 Colleges with pastoral studies (theology) programs.

Many academic programs could not be compared to peer group institutions. In addition, some academic programs were not included in predefined WCA divisions, for example: Computer Science, Pastoral Studies, and Sport Business (a flagship program at SLU). Also, English and History were split into multiple subdivisions, making it difficult to get a true picture of holdings in these disciplines. Hebrew titles were listed under "Language, linguistics and literature" in WCA, but these same titles would be supportive of a theology program, rather than a language program, at Saint Leo University.

Data were collected in two large three-ring notebooks, arranged by discipline, with graphs and spreadsheets illustrating both the total collection and each academic division. Data collected:

- total holdings;
- interlibrary loan statistics;
- publication dates;
- comparison of e-book and print book collections;
- comparisons of print collection using Books for College Libraries and Choice Outstanding Titles;
- comparisons of print collection to selected peer institutions.

Results and discussion

Verifiable, qualitative, and quantitative information about the print collection was amassed as a result of doing both an inventory and an analysis. The data validated or corrected subjective impressions, answered questions posed by librarians and faculty, facilitated decision making, and prompted changes.

As a result of the data collected, it was now possible to illustrate the value of the library's print and electronic book collections, and to demonstrate strengths, weaknesses, and imbalances in the overall collection. It also highlighted a need for greater attention to the university's flagship programs.

To correct disproportions in discipline-specific collections, new collection development policies and procedures were instituted, and the staff re-established systematic weeding of the print collection. The policy changes implemented led to increased faculty involvement in collection development and changes to the book selection process.

The analysis also revealed that the print collection is aging, somewhat unbalanced, and, in some disciplines, inadequate, and that the collection development policy needs to be updated. By using peer group comparisons, it became clear that some of the problems with the collection were widespread among comparable libraries and not unique to Saint Leo University. Some perceived weaknesses are universal rather than unique; for example, the age of the collection. The peer group analyses show that the average age of most collections is 30 to 40 years, purchased at a time when library budgets were larger and focused primarily on print materials (see Figure 1).

It is now possible to illustrate the value of purchasing and maintaining an electronic book collection, since an inclusion of recent e-book imprints improved the average age of the collection, increased circulation of the print collection, and

better supported off-campus students. Not only do the e-book collections provide resources to off-campus students, but they help compensate for shortfalls in the print collections (see Figure 2). The library has been purchasing electronic book collections since June of 2001; during the fall semester of 2001, the 6,000 e-books purchased for the initial online collection were accessed 1,419 times. Currently, the library has an e-book collection that numbers more than 53,000, and in the fall semester of 2007 they were accessed 12,553 times. Interestingly enough, the online collection might have increased print circulation as well: in the fall semester of 2001 there were 2,753 checkouts, and in the fall 2007 semester there were 2,941 checkouts, an increase of 7 per cent. A quick survey of the literature on this topic showed that this trend was true at some institutions, but not at all institutions (Littman and Connaway, 2004).

The focus of collection development at Saint Leo has shifted to put more emphasis on developing core collections in key academic programs. The library is responsible for developing the collections in support of the teaching mission of the university, and optimizing resources for users. Several years ago an allocation formula for monographic purchasing was introduced to make sure all disciplines were included. It became clear from the analysis the formula was not enough to correct current imbalances and a more focused core collection development strategy has been adopted. As discipline-specific holdings were compared to those of SLU peer institutions, a list of titles not currently owned was created. Where several libraries were found to own a particular title, that title was included in a list for purchase consideration. This was done for all flagship programs.

Additional lists of core titles were created by consulting *Resources for College Libraries* (Bowker). Lists were forwarded to department heads of flagship programs and programs with large enrollments, and were circulated among the faculty. The lists provided a way to reach out to faculty and facilitate their participation in collection development. This has increased faculty participation, and improved communication and relations.

Additionally, highlights of the results were presented to the library faculty, and to several academic departments. As a result, the English department requested a more in-depth analysis and a report of findings when the team reported there

Figure 1 Cannon Library collection profile parallels peer libraries

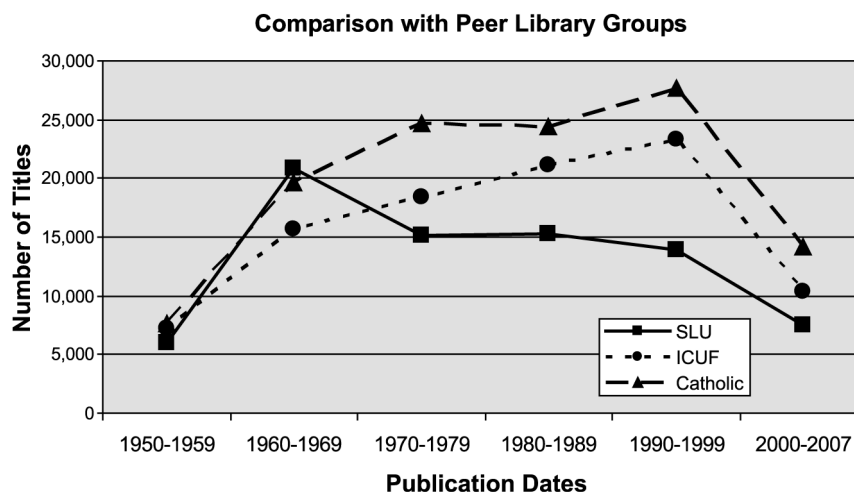
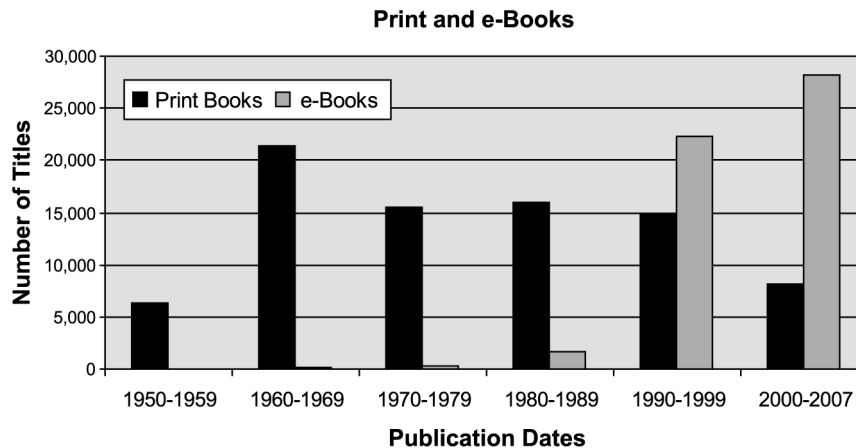


Figure 2 Declining print collection offset by electronic holdings

was a disproportionate number of books in History and English. There are multiple reasons for this finding – there is no formal departmental liaison program, and librarians might choose more books within their fields of expertise or knowledge base. “Lack of knowledge concerning the subject material could be used to explain the absence of certain, individual texts.” (Pankake *et al.*, 1995), and currently most SLU librarians have a background in the humanities. Additionally, some individual faculty members are more vocal library supporters or more frequent library users, and, as a whole, their fields tend to be better represented in the collection because they order more often. Finally, there are more books available for purchase in the humanities. “It is not surprising that many of the subjects with very large collections are also subjects with a very high publishing output, such as history and literature.” (Knieval *et al.*, 2005).

Deselection is a valuable secondary result that is gained from collection evaluation, and is a key ingredient of successful collection management (Agee, 2005). From WCA data, lists of titles currently owned that need to be reviewed for possible weeding were compiled. Titles unique to Saint Leo and not held by any of the other benchmark libraries were identified as possible candidates for deselection.

Conclusions

WorldCat Collection Analysis is an excellent tool for learning how to perform collection analysis. As Munroe and Ver Steeg (2004) suggest:

If the selector has little collection development background or experience in the field, he or she will need to do more quantitative study in order to become familiar with the field.

It provided accurate (but not real-time) data that graphically illustrates the library’s holdings by subject. Additionally, WCA revealed collection strengths and weaknesses, uniqueness and overlap, and age and format.

The creation of peer groups and comparisons with similar libraries was very helpful, showing whether or not collection development at a particular library was on target with what other libraries were doing. Where results differed, inconsistencies were examined further and, occasionally, justified. For example, SLU owns many books specific to Florida that libraries outside of Florida would not have, and the library also owns a significant number of volumes

pertaining to Catholicism, religion, and theology, quite a number of which are in German or which are uniquely held by this institution and a very few others.

E-book totals for Saint Leo appear to be much larger than for peer libraries, but it is unclear whether peer libraries reported their e-book holdings to OCLC. It is expected that e-books will become an increasingly larger and more important part of the library’s collection because of growing online and distance programs, and because some students prefer full text (MacDonald and Dunkelburger, 1998; Van Kampen, 2004). “Libraries have to invest in and prepare for a digital future while maintaining collections and services based on a predominately print world” (Bodi and Maier-O’Shea, 2005).

The library now has access to information which allows a better understanding of the collection and its profile. Records were enhanced by adding thousands of tables of contents and other notes, providing better access and clarity, which appreciably improved access to the collection through the catalog. Usage data collected thus far supports this supposition. Inventory is one of the best ways for librarians to really get to know their collection. It helps to determine whether what is in the catalog is actually on the shelf. For example, while completing inventory, it was determined that up to 10 per cent of the books were missing in some disciplines. Also, by using WCA, titles were found in OCLC with the SLU symbol attached that were not in the catalog or on the shelf. Missing titles have turned out to be a larger and more complex problem than anticipated, a problem which will need to be addressed in the near future.

Analyzing the monographic collection was a great start, which provided the library staff with data needed to determine collection policies and procedures. Including electronic books as part of the analysis pointed to future directions, especially in some subject areas where the information is changing faster than a print collection can possibly keep up. By considering all formats, the total amount of information in a given subject can be assessed (Bodi and Maier-O’Shea, 2005). It is likely that not all disciplines will be equally well supported by book collections; for example, the sciences are often better supported by databases and journal collections. Furthermore, not all disciplines publish books at the same levels. As Bodi and Maier-O’Shea (2005) ask:

How do we reasonably allocate funds, and how would a holistic budget more meaningfully reflect the library's physical collection, electronic access, and "things" to come?

A second analysis of the collection will be scheduled in a few years, providing the library with additional data, and a longitudinal look at the collection and how it has changed over a period of time. Collection analysis is not a static, one time or occasional avenue with which to analyze budgetary considerations; rather, it is a way to "provide a better understanding of the collection and the user community" (Johnson, 2004). In order to continue to improve the quality of the collection, additional steps need to be taken: it will be necessary to repeat the analysis at regular intervals; and to gather data from multiple sources such as circulation and interlibrary loan data; user studies also need to be added, and all library faculty should be brought into the process; finally, other authoritative sources should be consulted.

A new system of collection management is in place as a result of the analysis, one that integrates faculty involvement with a more focused approach in selection. The goal is to have a more balanced, institutionally effective collection. It is a measurable goal: "presented and reported properly, evaluation data are a powerful tool that important people want to see" (Intner, 2003). A future analysis will show whether the library is using its resources wisely and effectively.

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