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Building Faculty Support for Remote Storage:
Survey of Collection Behaviors and Preferences

Abstract:

A seismic retrofitting project required the UCSB Library (University of California Santa Barbara) to permanently reduce its onsite collections by 120,000 volumes. To accomplish this successfully, a strong collaboration with the faculty was essential. This paper describes a planning process in which the library worked with a faculty committee to implement a campus-wide survey of faculty and graduate students regarding their behaviors and preferences in accessing and using the collections. The survey outcomes informed a common understanding of which physical materials should remain onsite and which could be moved to storage with the least impact on research and teaching.

Keywords:
Faculty collaboration, Remote storage, User behavior, User surveys, Library space management, Systematic planning, Academic libraries

INTRODUCTION

Despite the rapidly accelerating acquisition of library materials in electronic format, many academic research libraries continue to face the problem of limited space for housing their still-growing physical collections. Over the past several decades, with increasing need to devote valuable on-campus library space to flexible, collaborative areas for study and services, libraries have moved major portions of their collections to off-site storage facilities, where they can be
housed in secure, environmentally stable conditions at a fraction of the cost of shelving materials onsite.

Library construction or renovation projects have frequently driven the need to move collections off-site, because they are often designed primarily to create additional user spaces rather than new housing for the physical collections. The UCSB Library (University of California Santa Barbara) faced this situation in 2009 when planning began for an addition and renovation project. Although the project included the construction of a new three-story wing, a portion of which would house Special Collections, net collection space throughout the library complex would not increase. A further challenge arose in late 2011, when engineers and campus planners determined that the eight-story tower section of the library, which houses collections in the humanities and social sciences, needed seismic retrofitting and fire safety renovations. The renovations would require that the top shelves throughout the tower be permanently removed to allow for installation of a fire suppression system, and an additional reduction of the collection footprint was anticipated in order to meet ADA requirements. In all, the collection of over 700,000 volumes housed in the tower would have to be permanently reduced by approximately

\[\text{\textsuperscript{1}}\] UCSB is a research-intensive institution with 1,054 faculty, 18,977 undergraduates, and 2,950 graduate students (UCSB Campus Profile 2012-2013, \url{http://bap.ucsb.edu/IR/campusprofile/cp2012.pdf}). The library holds over 3 million volumes.
120,000 volumes. As of early 2012, the renovations were scheduled to begin in about a year, and it was understood that this large reduction would have to be completed by that time.

Planning for the immediate challenge of reducing the tower collection had to be done within the context of a longer term strategy for reconfiguring all of the library's physical collections, both onsite and in regional and local storage. This was because another component of the library's addition and renovation project was seismic retrofitting of its two-story wing, which houses the science and engineering collections. Since this wing would be inaccessible during the seismic work, scheduled to begin in mid-2013, nearly 80 percent of its collections (240,000 volumes) would have to be moved off-site, with only a small core of essential books and current print journals remaining onsite in alternative, publicly accessible space within the library. Unlike the permanent eight-story tower reduction, the two-story move would be temporary, so the library would need a plan for determining which portions of these collections to return to onsite access at the conclusion of the renovation work in two to three years,

LIBRARY COLLECTION SPACE PLANNING INITIATIVE

The faculty would be an essential stakeholder in the process of reconfiguring the library's collections. Since the 1990s, faculty had participated directly in the continual process of review of the onsite collection to select materials for two local off-site buildings and for the Southern Regional Library Facility (SRLF), a cooperative high-density storage facility serving the five southern campuses of the University of California. The ongoing review followed a well-established procedure: books meeting criteria of imprint date and circulation were flagged and reviewed by subject librarians, with a final review by faculty. Yielding approximately 15,000 titles for storage annually, this title-by-title method enjoyed faculty support, but the library
lacked the staffing necessary to scale it up for the 120,000-volume reduction of the tower collection within the time period required for the renovation.

Clearly a different approach to faculty involvement was needed. For the large, permanent reduction of the tower collection to be successful, and for development of a long-term strategy for configuring the physical collections across the entire library complex, it was essential that the library build a strong collaborative process with the faculty. The literature on selection of materials for off-site storage has stressed the importance of faculty involvement. For example, Margaret Powell (2001), reporting on selection for Yale's off-site storage facility in the late 1990s, concluded that "planning for these facilities can provide an opportunity for librarians and faculty to work together to define the direction and shape of the collections, both now and for the future." Methods of involving faculty reported in case studies include marking books that are candidates for removal and inviting faculty to review them (UCSB’s process for its ongoing collection review, and also Lougee 1992, Austin and Seaman 2002, Jones and Fisher 2004, Lucker 2012); faculty consultations with subject librarians (Kattau 2012, Shlomo 2003); faculty advisory committees (Powell 2001, Shlomo 2003, Carpenter and Horell 2001), sharing lists of titles to be removed with faculty members for their review (Mosby 1992, Carpenter and Horrell 2001), and campus-wide communications (Kattau 2012).

The solution at UCSB was the Library Collection Space Planning Initiative. Guided by the vision of the University Librarian, the initiative was a collaboration between the library and faculty whose goals were (1) to develop a shared understanding of how to manage the immediate collection challenges presented by the seismic issues in the eight-story tower; and (2) to shape a long-term collection management strategy by establishing a rational and sustainable planning process. These goals would be accomplished by gathering reliable data about use of the
collections through a survey of faculty and graduate students, with a faculty committee providing oversight of its implementation and interpretation. To inform a common understanding of which physical materials should remain onsite and what services the library might develop to mitigate the impact of alternative access, the survey would answer two main questions: (1) What are behaviors and preferences relative to accessing the library's physical collections? and (2) What are the perceived impacts to research and instruction associated with alternative access strategies?

None of the studies on selection for off-site storage cited above, or others in the literature that the authors are aware of, report using survey methodology for this purpose. A survey would give all faculty and graduate students the opportunity to report how they actually access and use the collections. Were there identifiable parts of the collections that could be stored off-site with minimum impact on their work? Were there disciplinary differences in accessing and using the collections, or differences based on the use of print versus electronic resources? Were there specific services or off-site retrieval times that could help offset the perceived impacts to use of the relocated collections? The survey outcomes would directly inform the library's plan for the immediate onsite collection reduction. Repeated at multiyear intervals to yield longitudinal data, the survey would also provide a basis for long-term collection planning and a sustainable consultative process with the faculty. The strategic assessment of how collections were used would enable the library, working with faculty, to reshape the onsite collections and the prospective development of print resources, including decisions about which portions of the science and engineering collections to relocate back to the library at the completion of the addition and renovation project in two to three years.
The Library Collection Space Planning Initiative was launched in early 2012 with a letter to all faculty from the campus Executive Vice Chancellor (EVC).² The letter described the library's immediate and long-term space challenges and stated that faculty input would be essential to ensure the best outcomes for collection access. Coming from the EVC rather than the library, the letter signaled faculty ownership of the planning process from the start. It directed the University Librarian to assemble an ad hoc faculty committee that would be "charged with the work of advising the library on prioritization of onsite holdings, thereby minimizing adverse impacts of alternatives to onsite location of print resources."

The University Librarian convened the Ad Hoc Advisory Committee on Library Collection Space Planning in April 2012. Committee members, nominated by academic deans and the Academic Senate, included seven faculty representing disciplines from the humanities, social sciences, and sciences, and two graduate student representatives. Working with the committee was a library support team consisting of the Head of Collections and collection coordinators for humanities and social sciences. Around the time the committee was formed, an

article was published in the *Lens* (Winter 2012), the library's newsletter for faculty, describing the collaborative process and factors that would shape the committee's work. Like the letter from the EVC, the article emphasized the faculty's leadership role in the planning process and the importance of the survey outcomes in shaping the upcoming large-scale collection relocations. The library also created a webpage for the initiative, which initially included links to the *Lens* article and the EVC letter, and listed the committee members.

ASSESSING FACULTY BEHAVIORS AND PREFERENCES

Survey Design and Implementation

Following an initial meeting of the committee to review the charge from the EVC, the library support team, working with the UCSB Social Science Survey Center (SSSC) and in consultation with library collection coordinators, drafted a survey questionnaire for the committee's review. A major challenge was to design a question that would ask respondents to choose the academic discipline with which they most closely identify, so that the resulting data might show relationships between discipline and the ways that respondents access and use the collections.

The challenge was that the disciplinary categories had to (1) correspond broadly to the

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3 http://www.library.ucsb.edu/general-news/lens

4 http://www.library.ucsb.edu/library-addition-renovation/collection-space-planning
organization of the library’s physical collections in order to yield data about which portions of
the collection could be moved to storage; and (2) correspond to the major research areas at
UCSB. Simply using academic departments for this variable would not produce usable
outcomes because the research emphases of faculty do not always align with their academic
department affiliation, and the campus departmental organization does not map directly to the
organization of the library’s collections. In addition, the discipline categories had to be few in
number in order to produce meaningful results. The solution proposed by the support team was
to use the first-level categories of Columbia University's Hierarchical Interface to LC
Classification (HILCC), which was designed at Columbia University in the late 1990s to provide
subject access to electronic resources (Columbia University Libraries 2007). The subject-term
categories in the HILCC are based on the LC Classification, so they map broadly to the
organization of the library's physical collections. Faculty members on the committee
recommended that Education and Psychology, both second-level categories under Social
Sciences in the HILCC, be added to the categories on the questionnaire so that they would better
fit campus research emphases. They also recommended that the science categories be further
differentiated, which increased the number of categories from three to five, for a final list of
fifteen disciplines.

In May 2012 the survey was emailed twice by the EVC's office to the campus all-faculty
list and twice by the Graduate Division to the all-graduate-student list. To encourage responses
from across all disciplines, the email cover letter stated: "Regardless of which portions of the
collections you use, or even if your use of the library is exclusively online, your response is
critical to the success of our space planning effort.” Since the faculty list includes tenured and
tenure-track faculty only, subject librarians emailed the survey to lecturers and researchers in
their departments, and to bolster participation, they also sent follow-up reminders to both faculty and graduate students and met with those who had questions. Seven hundred seventy-two completed responses were returned by the close date in June 2012, for a margin of error of 4.2 percent and a confidence level of 99 percent.\(^5\)

Survey Results and Analysis The committee read the full survey report from the SSSC (UCSB Social Science Survey Center 2012), which provided descriptive statistics and a lengthy narrative analysis. Because it was essential that committee members develop a shared understanding of interpretations that could be supported by the statistics, the support team prepared a document listing trends in behaviors and perceptions that were observable from the data. In this document, differences among the broad disciplines of humanities, social sciences, and sciences were based on the descriptive statistics in the SSSC report, which were later confirmed by statistical analysis. The document summarized results based on discipline rather than demographic group (faculty and graduate students) because the potential for the former to indicate portions of the

\(^5\)According to the UCSB Campus Profile 2011-2012 (http://bap.ucsb.edu/IR/campusprofile/cp2011.pdf), the total number of faculty, lecturers, and researchers at the time of the survey was 1,640, and the total number of graduate students was 3,065, for a combined total survey population of 4,705. In this report, ladder faculty, non-ladder faculty, and researchers are referred to collectively as faculty.
collection that could be moved to storage. After review and discussion, the committee validated and endorsed all of the observations. This was a critical step because it would enable the library, using the survey outcomes, to formulate broad strategies that would achieve the mandated onsite collection reductions with the general support of the faculty.

The survey included several different types of questions. Some asked respondents to rate the importance for their research and teaching of various resources or access strategies; in others, they were asked about their degree of confidence in the resources or strategies. There were also questions about frequency of various types of collection use. All of these questions were five-point Likert items whose five responses were aggregated to three in the survey analysis from the SSSC. For example, for questions about dependence, the responses "dependent" and "moderately dependent" were combined as "dependent"; "slightly dependent" and "neutral" were combined as "slightly dependent"; and "not dependent" remained its own category. The responses for questions about importance were combined similarly. For questions about frequency that asked about specific time periods, "daily" and "weekly" became "often,"

6 Only one of the survey questions reported in this article showed a significant difference between responses of faculty and graduate students. See below, New Services.

7 The survey questionnaire is in UCSB Social Science Survey Center 2012, 32-37.
"quarterly" and "yearly" became "occasionally," and "never" remained its own category. Other questions asked how long respondents would be willing to wait for retrieval of a book or article, and for these, "1-3 days" became "short wait," and "3-7 days" and "1-2 weeks" were combined as "long wait." For the question that asked respondents to identify their research discipline, three of the fifteen disciplines were selected by too few respondents to yield meaningful data, so responses for those three were aggregated with those of other disciplines: Philosophy & Religion with Languages & Literatures; Journalism & Communication with Social Sciences; and Law, Politics & Government with Social Sciences. The final survey question allowed respondents to add free-text comments.

A key outcome was that the data indicated relatively high tolerance for storage of print materials and willingness to wait for off-site retrieval. Over 90 percent of respondents said that once they have identified a book they want, it would be acceptable if it were not located in the library as long as they could get it after a “short wait” (37 percent) or "long wait" (54 percent). Only 10 percent said it must be located in the library. As one respondent commented, “tables of contents, previews, [and] indexes are helpful in determining if I need the book, but once I decide I need it, it would be helpful to get it within a week or so.” Nonetheless, the survey uncovered significant differences among respondents in humanities, social sciences, and sciences regarding the use of print books. Asked how often they use books in the library to refer to without necessarily checking them out, 45 percent of respondents in the humanities said “often,” compared to 18 percent in the social sciences and 10 percent in the sciences (Figure 1). One faculty member commented that “As a historian I depend upon ‘older’ works which I don’t necessarily check out. It is a great convenience to be able to access these on the shelves for a quick reference rather than having to wait for [them] to come up from [storage].” And although
80 percent of all respondents said that a print copy of a book is “important” for research or teaching even if the book is available online, a significantly higher percentage of those in the humanities said it is “important” (91 percent) than in the sciences (67 percent).

Differences by broad discipline in the responses to questions about specific categories of print books provided support for more selective relocation to off-site storage. Asked about the importance for their research and teaching of books published more than thirty years ago, 83 percent of respondents in the humanities said they are “important,” compared to 47 percent in the social sciences and 44 percent in the sciences. Although nearly three-quarters of all respondents said that older editions of books are “important” (26 percent) or “slightly important” (48 percent), over three times as many in the humanities as in the sciences said they are “important”
(41 percent compared to 12 percent). According to the descriptive statistics, fewer than 20 percent in the disciplines of Business & Economics (18 percent) and Education (19 percent) said they were "important." There were similar differences in what respondents said about the importance of non-English books. Sixty percent of all respondents said they are “important” or “slightly important,” but 10 percent of those in the sciences said they are “important” compared to 60 percent in humanities and 24 percent in the social sciences; only 9 percent of respondents in Business & Economics said they are "important."

Another key outcome was that the data showed high tolerance for off-site storage of print journals that are available online. Respondents were asked whether print copies of online journals are needed; if needed, whether they must be located in the library; and if located off-site, whether short or long retrieval times are acceptable. While 41 percent of the sample said they are not needed, there was a significant difference by broad discipline: 51 percent in the sciences said they are not needed, compared to 39 percent in the social sciences and 32 percent in the humanities. Fewer than 3 percent of all respondents said that they must be located in the library, and a majority said that a "short wait" (33 percent) or "long wait" (24 percent) was acceptable for retrieval. When respondents were asked how confident they are that print copies of online journals are not needed in the library if the print is retrievable within 1 business day, only 4 percent said they were "not confident." And when asked how confident they are that print copies of online journals are not needed in the library if access and preservation are secure in a permanent archive such as JSTOR, 83 percent of all respondents said they were “confident” and fewer than 5 percent said “not confident." Respondents in the discipline of Art, Architecture, & Applied Arts differed notably on this question according to the descriptive statistics, with 57 percent saying they were "confident" and 22 percent saying "not confident."
High percentages of all respondents said they depend on electronic resources as starting points for their research and teaching. Nearly 90 percent of the sample said that for a starting point they are "dependent" on an electronic resource covering various disciplines, like Web of Science or JSTOR; 84 percent said they are "dependent" on one specific to their discipline; and 87 percent said they are "dependent" on a general Web search engine such as Google. Browsing in the library remains an important access strategy, with just under half (48 percent) of all respondents reporting that they are "dependent" on it as a starting point, but the data showed significant differences among the broad disciplines: nearly three quarters in the humanities said they were "dependent" on browsing, but only 43 percent in the social sciences and 28 percent in the sciences (Figure 2).
Typical of comments about browsing from respondents in humanities was one from a faculty member who said that “there is a real benefit to having books in print and on the shelves in the library. I can’t say how many times I’ve found something useful on a nearby shelf next to the thing I was looking for that I wouldn’t have found otherwise.” One faculty member in physics said that “books located in the library are an important source of the serendipitous inspiration and rapid focused learning which are essential to progress in my field.”

STRATEGIES FOR ALTERNATIVE ACCESS

Once the committee had validated the interpretations that were observable from the survey data, the next step was to develop strategies for achieving the onsite collection reduction that reflected the survey outcomes as closely as possible while allowing the library flexibility in making specific relocation decisions. The library support team, working with collection coordinators and technical services personnel, drafted for the committee's review a document that listed several planning options for alternative access, three for print journals and three for books.

Journals

The first of the journal options was to relocate to local off-site storage print journals that the library has cancelled in print but provides access to online. The next option, a corollary of the first, was to relocate to local storage or withdraw from the collection selected print journals that are available online and for which access and preservation are secure in a permanent archive such as JSTOR. Copies of print volumes that are withdrawn would be available from SRLF in Los Angeles, but would require 3-5 days' retrieval time, whereas locally stored volumes would be retrieved within 1 day. In the committee discussion of this option, faculty members pointed out that compared to other disciplines, a far lower percentage of survey respondents in Art, Architecture, & Applied Arts had said they were "confident" that print copies of online journals
whose access and preservation are secure in a permanent archive such as JSTOR are not needed in the library. In response to that concern, the support team revised the option to state that because of disciplinary differences in the survey results, implementation would be subject to review by subject librarians, and print journals in Art, Architecture, & Applied Arts would not be withdrawn.

The third planning option for journals was to relocate to local storage selected print journals that had been cancelled in earlier serial review projects for which the faculty had provided oversight, including titles available in print only. Since the survey did not include a specific question about print-only journals, this option, unlike the others, was supported at best indirectly by the results, but it was submitted by the support team for committee review because it could potentially account for a substantial portion of the required collection reduction. As justification, the planning document cited the high percentages of survey respondents--nearly nine out of ten--who said they were "dependent" on electronic resources such as Web search engines and discipline-specific databases as starting points for research or teaching, since a primary purpose of these resources is to provide bibliographic access to the contents of scholarly journals. In the committee discussion, concern was expressed that the strategy was not directly supported by the agreed-on interpretations, that cancelled print journals remain important, and that the disciplinary differences in collection use brought to light by the survey should be considered. In response, the support team modified this option to include a statement that because of disciplinary differences in behaviors and preferences, implementation would include review by subject librarians.

Books
The first of the three planning options for books was to relocate to local storage selected older editions of books for which the library holds more recent editions, in disciplines where fewer than 20 percent of respondents said that the older editions are important, namely Business & Economics, Education, and all of the sciences. The next option was to relocate selected non-English titles, likewise only in disciplines where fewer than 20 percent of respondents said that these are important—Business & Economics and all of the sciences. The third option was to relocate selected older books, such as selected titles published more than twenty years ago that have not circulated in more than ten years. Although the survey question that asked about the importance of older books had specified books published more than thirty years ago, this option proposed twenty years in order to give the library greater flexibility. Implementation of all three options for books would include review by subject librarians.

The committee approved the planning options as revised by the support team in October 2012. With this approval, a strategy for reducing the tower collection, informed by the survey results, was in place and the committee's task was accomplished. Shortly thereafter, a final report by the support team summarizing the survey results and planning options was shared with the committee (UCSB Library 2012) and then posted on the Library Collection Planning Initiative webpage, along with the planning options document, initial letter from the EVC, survey questionnaire, and report from the SSSC. To mark the completion of the committee's work, the University Librarian sent a letter to the members in which she thanked them and stated that the library would now move forward with an action plan for selected collection moves in spring 2013, using the strategies for which the committee had reached consensus regarding consistency with the survey findings. In the Fall 2012 issue of the Lens, an article entitled "Library Collection Space Plans Emerge from Collaboration" reported that the committee had met over
the summer, analyzed the survey data, and endorsed the outcomes. Briefly reporting the key survey results, the article stated that the library "would continue to draw on what [was] learned about the needs and research behaviors of our users to make long-term decisions about how the library's collections are shaped."

New Services

Another purpose of the survey was to provide data that would indicate what services the library might develop to mitigate the impact of alternative collection access. Committee members showed enthusiasm for potential new services, and responses to one of the survey questions suggested an immediate step that the library could take. Asked about the importance of various ways of evaluating a book's usefulness for research or teaching, respondents who said that the full table of contents is "important" ranged from over 90 percent in the humanities to 70 percent in the sciences (Figure 3).

![Figure 3: Features to Evaluate a Book's Usefulness: Importance of Table of Contents in the Catalog Record](image)
Eighty-six percent of the sample said that an abstract or summary of the book is "important," and 92 percent said that a review is "important" or "slightly important." Based on this data, in May 2013 the library implemented enhancements to the local catalog by licensing Syndetics software, which provides full tables of contents, content summaries, and *Choice* and *New York Times* book reviews in catalog records for books published back to the 1980s.

[LOOKING TO THE FUTURE]

The collection challenges presented by the seismic retrofitting of the library's eight-story tower provided an opportunity for partnership between the library and faculty that addressed the immediate need to reduce the tower collection. With oversight by a faculty committee composed of representatives from across the disciplines, a survey of all faculty and graduate students yielded reliable information about behaviors and preferences in use of the collections, and about perceived impacts to research and instruction resulting from alternative collection access. Reviewing the survey data, the committee reached a shared understanding that UCSB faculty and graduate students have a relatively high tolerance for storage of print books and print journals

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8 There was a significant difference between faculty and graduate students regarding the importance of an abstract or summary. Eighty-two percent of faculty said it is “important” and 17 percent said “slightly important,” compared to 89 percent and 9 percent of graduate students respectively. Faculty includes both ladder faculty and lecturers.
available online, are willing to wait at least a short time for retrieval, and rely heavily on electronic resources for bibliographic access. Based on their interpretations of the survey outcomes, the committee approved broad strategies that would enable the library to achieve the large required reduction of the onsite collection with the support of the faculty.

The 2012 planning initiative not only addressed the immediate need to reduce the tower collection but also provided a basis for future collection planning across the entire library complex of on-campus space and off-site storage in local and regional facilities. A number of factors will shape the planning process in the next few years. Although the building project will include the addition of a new three-story wing, net onsite collection space will remain fixed into the future. The total collection footprint will continue to grow, but more slowly, with the library's rapidly increasing reliance on electronic resources. In addition, planning will be needed to determine which portions of the science and engineering collections, most of which were moved offsite during the building project, should be returned to the library. The 2012 survey outcomes will help shape the future configuration of the library's physical collections and provide a basis for longitudinal data when the survey is repeated at multiyear intervals. Equally important, the 2012 initiative established a base of faculty trust and support and a collaborative process that will enable the library to serve future research and instructional needs with maximum effectiveness.

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