

Access-Informed Collection Development and the Academic Library: Using Holdings, Circulation, and ILL Data to Develop Prescient Collections

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ABSTRACT. Addressing the problem of access versus ownership and surveying uses of ILL data in collection assessment, this paper argues for a model of access-informed collection development that brings subject analysis and just-in-time acquisitions together into a single, unified method. Drawing upon the work of John Ochola, this paper articulates a method of subject analysis that combines holdings, circulation, and ILL data to determine the use characteristics of particular LC subclasses. It then combines this access-informed subject analysis with just-in-time acquisitions. This paper argues that access-informed subject analysis improves on assessment methods that do not include all three variables, and that just-in-time acquisitions augments subject analysis by providing selection guidance beyond the level of LC subclasses, as well as discrete, measurable feedback on selection decisions. doi:10.1300/J105v30n03_03 [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

Academic libraries operate between the push and pull of two persistent realities, the first being their missional responsibility to fulfill the information needs of the students, faculty, and staff of their host institutions, and the second being that no collection, no matter how extensive, can meet all the needs of any individual user or class of users all of the time. Academic libraries mediate this tension between missional ideals and institutional realities by means of their collection development policies and by providing ILL services where their collections fall short. Assuming that the collection development policy is in good order and that the library belongs to those consortia most likely to provide access to the right materials at the right time, things should run smoothly. But, of course, theory is always easier than practice.

For all the good ILL does by allowing academic libraries to better fulfill their stated missions, ILL's very efficacy creates a dilemma. In the face of increasing materials costs and seemingly ever-decreasing budgets, how should academic libraries adjust their collection development policies to achieve the best possible balance between access and ownership? Clearly, ownership should remain a priority for academic libraries, as users will always require sufficient immediate access to certain information resources to merit paying for them up front. But where should libraries draw the line on other materials? When is ownership not worth the cost, and access good enough to meet the needs of most users most of the time?

Questions such as these are hard to answer and have contributed to much debate in the professional literature. This debate tends to focus on the question, "Which should be of greater priority to academic libraries, access or ownership?"¹ Regardless of how librarians respond to this question, one thing is clear—no answer is sufficient that does not consider how ILL informs collection development policies and procedures. ILL is not just an institutional stop-gap, allowing collection managers to avoid the hard question of how to achieve balance between access and ownership, but instead is a tool for refining this balance as they reflect on and revise their collection development policies.

This paper considers the role ILL plays in collection development, focusing in particular on the problem of access versus ownership. It looks at methods of accounting for ILL requests in the collection development process, as well as how libraries are beginning to use this information to support just-in-time acquisitions.² Pursuant to articulating a model for "access-informed collection development," this article brings

subject analysis and just-in-time acquisitions together into a single, unified method. Drawing upon the work of John Ochola, this paper articulates a method of subject analysis that combines holdings, circulation, and ILL data to determine the use characteristics of particular LC subclasses. It then combines this access-informed subject analysis with just-in-time acquisitions. The paper argues that access-informed subject analysis improves on assessment methods that do not include all three variables and that just-in-time acquisitions augments subject analysis by providing selection guidance beyond the level of LC subclasses, as well as discrete, measurable feedback on selection decisions.

ACCESS versus OWNERSHIP OR ACCESS AND OWNERSHIP?

Of course, the problem of access versus ownership is not new and likely finds its origins in the now defunct Farmington Plan.³ Envisioned in 1942 but never implemented successfully, the Farmington Plan proposed that

at least one copy of every book published anywhere in the world following the effective date of the agreement, which might conceivably be of interest to a research worker in America, will be acquired and made available, promptly after publication, by some one of the subscribing libraries.⁴

As the proposal for this plan implies, already in 1942 librarians understood that an exclusive “ownership” approach to collection development was untenable if their libraries were to service the expanding research interests of their respective clienteles. No library, with limited budget and staff, could possibly collect all of the materials that “might conceivably be of interest” to any particular researcher working within the scope of its mission. This recognition that information needs always outstrip institutions’ ownership capacity has only increased since the “information explosion,” the seemingly geometric rate of increase in materials costs, and the failure of academic libraries’ budgets to keep pace with either of these developments.

As Laura Kane explains, “With the information explosion in the twentieth century, it has become evident that libraries are no longer capable of purchasing or ‘collecting’ the vast amount of materials that would satisfy all the information needs of every patron.”⁵ Not only is the

volume of information increasing, Kane notes, but costs are spiraling upward at the same time that budgets are being either frozen or reduced. These trends have had a profound impact on what libraries can afford to own and how they are using their budgets. "To offset the problems created by the information explosion coupled with insufficient budgets and increasing costs," Kane says, "libraries have been forced to pursue other methods of fulfilling the information needs of patrons."⁶ The principal means by which libraries have addressed this is to shift more resources into information access. First, Kane says, libraries have become more reliant on ILL for fulfilling information and materials requests.⁷ Second, libraries have begun to shift a greater portion of their budgets into purchasing access services, including full-text databases and document delivery.⁸

With the erosion of libraries' ownership capacity, and ever-increasing pressure to provide more access to more information, it is clear that academic librarians must balance access and ownership in their collections. What is not clear, though, is how librarians should achieve this balance. For example, it is often unclear whether a library should own an item or merely provide access to it, either through ILL, in electronic format, or by some other means. As Shelia Intner suggests, access can mean different things at different times, from the perpetual availability that comes with ownership to complete unavailability.⁹ Available where, when, under what conditions, and in what format? The librarian must address each of these questions when deciding whether to purchase an item for ownership, or purchase time- or format-limited access. Additionally, determining whether access will cost less than ownership is often unclear, especially if the librarian cannot accurately estimate an item's use over time.

Each of these challenges implies the need for policy. With regard to the first challenge, Intner suggests that librarians decide whether to own an item depending on its accessibility in another form. "Outside of a nucleus of materials for which demand is highest," she says, "what should be purchased and owned are not the same materials most other libraries are buying, too, but exactly those marginally-demanded monographs, journals, and other materials that can serve a library's distinctive public in unique ways to which there is no other access."¹⁰ Intner argues that, wherever possible, librarians should provide access to materials rather than own them. But is this always good policy? As Nancy Cunningham suggests, often electronic and photocopy forms of information resources do not match the quality of their originals, to the point that information is lost or unusable.¹¹ This is especially true of medical and

scientific materials where the readability of figures and diagrams is often crucial. In some cases at least, even where demand is low, ownership of original materials may be preferable.

With regard to the second challenge, some librarians have attempted to develop methods by which to determine the relative cost of access versus ownership.¹² However, as F. K. Rottmann shows, these methods are often inaccurate.¹³ Since most libraries cannot say with accuracy how much it costs to borrow an item, and since they cannot always estimate the frequency with which an item will be used, such methods lose predictive value. In short, determining the relative value of access versus ownership prior to making a purchasing decision is risky business.

What, then, is the solution? On the one hand, access has the disadvantage of not replicating the quality provided by ownership, and it entails greater fiscal unpredictability. However, because ownership capacity cannot compete with user needs, some rapprochement is necessary. It is hard to imagine a collection development policy that could balance access and ownership without leaving room for big mistakes. One thing is clear, though. Neither access nor ownership in exclusion of the other will be sufficient to meet most users' needs most of the time. In the end, the tension between access and ownership cannot be resolved completely. Purchasing mistakes will happen, access and lending will compromise service on occasion, and users will be served less well than if their institutions could afford to own every information-bearing entity known to humankind. However, if collection management policies cannot be perfect, they can at least be better.

ACCESS-INFORMED COLLECTION DEVELOPMENT

Since academic librarians cannot resolve the persistent tension between access and ownership, they are better off seeking a collection development strategy that maximizes the information they have at hand to determine which materials are best suited to ownership, and which to access. Whatever form this strategy takes, it must provide the selector with a reasonable estimation of the relative benefit of owning an information resource, as opposed to only providing access to it. This criterion suggests the need to account for two factors: use-benefit, or the value of an item to the collection as a function of frequency or intensity of use; and cost-benefit, or the value of an item to the collection as a function of ownership cost. While this study acknowledges the importance of cost-benefit analysis to determining the relative benefit

of owning an information resource, assessment of such methodologies falls outside of its purview. Rather, this study focuses on the merits of a particular kind of use-benefit analysis—access-informed collection development—and leaves the matter of cost-benefit analysis to individual institutions. Specifically, this study focuses on how holdings, circulation, and ILL data may be combined to contribute to a robust collection development strategy, one with the potential to significantly increase collection prescience.

For purposes of this study, access-informed collection development refers to any collection development strategy that prioritizes users' attempts to access information as the key indicator of need, regardless of whether they are successful. As Robert Broadus has argued, "One way to estimate what library patrons will need, and especially what they will want, is to determine what kinds of materials they have used in the past."¹⁴ He recommends that librarians augment their local knowledge of patrons' needs and wants with "collection-use studies," or quantitative analyses of what they are accessing now or have attempted to access in the past. "Especially significant" to this analysis, Broadus says, "are facts about the characteristics of the items that patrons ask to be borrowed from other libraries."¹⁵ Broadus suggests that ILL requests reveal something about users' needs not met by an institution's collection. His central insight is that ILL data provides feedback from users about what they want that either the library does not have, or is currently unable to make available to them (e.g., an item that is circulating, on reserve, or at the bindery). If patrons are willing to go to the effort of asking for something, Broadus's argument goes, it is fairly likely they will put the material to good use.

While the importance of collection-use studies has been well understood by academic librarians for some time, in practice these studies have tended to emphasize circulation statistics rather than address users' attempts at access as a whole. While Trueswell's 80/20 rule remains a valuable instrument, especially as it has been revisited and revised over the years, still, interpretations of this rule tend to focus exclusively on circulation.¹⁶ Access-informed collection development, on the other hand, seeks to account for all attempts at access, regardless of whether they are successful, are filled locally, or are filled through access services. Currently, access-informed collection development focuses on ILL data for informing selection decisions.¹⁷ For purposes of this study, methods pertaining to access-informed collection development may be divided into two categories, subject analysis and just-in-time acquisitions.

Methods in the category of subject analysis attempt to combine holdings, circulation, and ILL data to analyze the real use of a library's collection within a particular subject area. By comparing holdings with circulation and ILL requests within a given subject area, librarians determine whether their collections are too large or too small, underused or overused, and whether they should direct more resources into purchasing or providing access to materials within that area. While helpful for determining use within a given area, subject analysis is not particularly useful for determining which titles should be purchased. Methods in the category of just-in-time acquisitions, on the other hand, use ILL data to make decisions about particular titles. These methods involve purchasing materials requested through ILL on an expedited basis where selectors have cause to believe the requested items will augment the collection and be used with a frequency that merits their ownership cost. Subject analysis predates just-in-time acquisitions, while just-in-time acquisitions assumes the availability of subject analysis data. Both methodologies work best when they work together.

ACCESS-INFORMED SUBJECT ANALYSIS

Development of access-informed subject analysis began in earnest in the 1970s and grew rapidly through the 1980s. Several methods have built upon each other over time, while others are no longer discussed. One rudimentary means of analysis, now defunct, was presented by Gary Byrd in 1982.¹⁸ In his study of medical libraries, Byrd compared the rate of acquisitions within particular subject areas with the rate of ILL requests within those same areas. By comparing rates, Byrd argued that selectors could determine when they were purchasing too much or too little in comparison with users' needs. Byrd argued that if the rate of acquisition is lower than the ILL request rate, then selectors likely are not acquiring enough materials within a given subject area. If, on the other hand, ILL requests are disproportionately low compared with acquisitions, then selectors likely are overbuying. While suggestive, Byrd's method presents two notable defects—it does not account for collection size and it does not account for circulation. Without collection and circulation figures, the selector cannot be sure whether discrepancies between acquisitions and request rates signify a needs-inappropriate collection that contains too many of the wrong items, or a needs-appropriate collection that does not contain enough.

A more recent but similar method is Albert Henderson's "collection failure quotient."¹⁹ In his study of 80 college and university libraries, Henderson divides the total number of ILL borrowings by the number of volumes in the library collection. By comparing the resulting ratio with those of other colleges and universities, Henderson argues that this quotient offers selectors a means by which to rank their collections' efficacy at filling user needs. "As an operating ratio responding to patron behavior in the context of a growing collection," Henderson argues, the collection failure quotient "can help to evaluate library performance and to make decisions about the effective balance of resource allocations."²⁰ While Henderson does not explicitly apply this quotient to particular subject areas, it is clear that selectors may do so for the purpose of investigating dependency on ILL within a given area. However, like Byrd, Henderson overlooks circulation. While his quotient may be valuable for measuring current dependency on ILL within given subject areas, nevertheless it fails to account for the relationship between holdings and total attempts at access, where the latter includes circulation as well as ILL requests. Without knowing how requests compare with circulation within a given subject area, selectors cannot accurately determine the significance of either a high or low quotient to the overall prescience or accessibility of a collection.

Rather, what is required is a method of subject analysis that allows selectors to set holdings, circulation, and ILL data side-by-side. Recently, John Ochola has offered such a method.²¹ In contrast to Byrd's acquisitions approach and Henderson's collections approach, Ochola combines two methods of subject analysis that allow him to compare holdings with total attempts at access, including circulation and ILL requests. First, Ochola proposes a "percentage of expected use," by which he compares a library's holdings with circulation. As he explains, George Bonn formulated the "use factor" in 1974 to account for discrepancies between circulation and holdings. Ochola says that Bonn "calculated the use factor by dividing the circulation percentage of a subject by the holding percentage of the same subject. He reasoned that the use factor would be 1.00 if circulation and holdings percentages were identical."²² By 1981, Ochola says, Terry Mills "added another concept to Bonn's use factor with a method known as 'percentage of expected use' to determine the level of expected use of materials within specific subject areas."²³ In short, Mills "took Bonn's use factor and multiplied it by one hundred. The underlying assumption was that the expected use of a subject would be 100 percent." Similar to methods derived from Trueswell's 80/20 rule, the "percentage of expected use"

allows selectors to determine correlations between holdings and frequency of use within a given subject area.

Second, Ochola proposes a “ratio of borrowings to holdings,” by which he compares a library’s holdings with ILL requests. As Ochola explains, in 1986 William Aguilar devised this ratio, which “compares the number of interlibrary loans relative to the holdings and is calculated by dividing the percentage of interlibrary loans on a given subject with the percentage of holdings in the same area.”²⁴ Similar to Henderson’s “collection failure quotient,” the “ratio of borrowings to holdings” allows selectors to determine correlations between holdings within a given subject area and attempts at access that outstrip these holdings. Because both the “percentage of expected use” and the “ratio of borrowings to holdings” are calculated based on the percentage of holdings in a given subject area, these quotients may be directly compared, allowing the selector to set circulation and ILL request data side-by-side.

As Ochola says, “Circulation data in and of itself may not provide adequate proof of use or disuse. By using a combination of circulation statistics and interlibrary loan data it is possible to provide reliable proof of use or disuse of materials.”²⁵ By calculating the “percentage of expected use” (PEU) and the “ratio of borrowings to holdings” (RBH) for particular subject areas and then comparing these, subject areas may be sorted based upon their unique use characteristics. This analysis allows selectors to measure the relative use-benefit of a subject area against the collection as a whole. Ochola accomplishes this analysis by following a three-step procedure.²⁶ First, he computes the percentage of holdings, percentage of circulation, and percentage of ILL borrowings for selected LC subclasses. Second, he computes the PEU for each LC subclass by dividing the percentage of holdings by the percentage of circulation; he then computes the RBH for each LC subclass by dividing the percentage of holdings by the percentage of ILL borrowings. Third, he compares the results of the PEU and the RBH with each LC subclass by computing the mean and standard deviation of each and sorting the results into four categories. These categories indicate how the PEU and RBH for each subclass deviate from their respective means, and suggest the use characteristics of each subclass.²⁷ These categories may be organized as shown in Table 1.

On this model, within a given LC subclass, if the percentages of total circulation and ILL borrowings outstrip the percentage of holdings, then this subclass is likely overused and represents an area for growth.²⁸ In this case, the selector likely should buy more material and consider increasing access. If the percentage of circulation outstrips the percentage

TABLE 1. Measuring Subject Area Use Characteristics

Deviation of PEU from Mean	Deviation of RBH from Mean	Use Characteristics of LC Subclass
1. Positive	Positive	Heavy circulation and heavy use of ILL
2. Positive	Negative	Heavy circulation and light use of ILL
3. Negative	Positive	Light circulation and heavy use of ILL
4. Negative	Negative	Light circulation and light use of ILL

of holdings but ILL borrowings are low, then this subclass is likely overused but well suited to users' needs. In this case, the selector might consider purchasing more material to reduce the burden on the current collection, but this may not be immediately necessary for improving service. If the percentage of circulation is low compared with the percentage of holdings but ILL borrowings are high, then this subclass is likely underused and inappropriate to users' needs. In this case, the selector should consider purchasing more material, while holding access stable. If both percentages of circulation and ILL borrowings are low compared with the percentage of holdings, then this subclass is likely appropriate to user needs but larger than required. In this case, the selector should likely reduce purchases or consider weeding.

While, as William Britten has argued, selectors still need to carefully analyze the particular holdings of LC subclasses prior to making collection decisions,²⁹ Ochola's method of access-informed subject analysis is a powerful tool for isolating those use characteristics most likely to inform these decisions positively. However, on its own, Ochola's subject analysis does not resolve which items should be purchased beyond the level of LC subclasses. Here is where just-in-time acquisitions becomes useful to access-informed collection development.

JUST-IN-TIME ACQUISITIONS

Since the early 1990s, selectors have begun to explore just-in-time acquisitions as a way of augmenting access-informed subject analysis.³⁰ In short, just-in-time acquisitions involves purchasing items requested through ILL rather than borrowing them from other libraries. Most just-in-time acquisitions programs involve purchasing requested items on an expedited basis where selectors have cause to believe that these items will be used with a frequency that merits their ownership cost. As Alberta Comer explains, these programs have been "overwhelmingly

successful” where academic libraries have implemented them.³¹ Programs at Bucknell, The University of North Carolina at Wilmington, Purdue, and The University of Wisconsin-Madison have all met with success. Spokespersons for these programs report that just-in-time acquisitions not only provides a higher level of service to those making the initial request, but that it often costs less than traditional ILL and contributes valuable, high-circulating items to their collections.

According to Suzanne Ward, “Bucknell University was the first to report the details of an on-demand ILL/Acquisitions partnership.”³² Begun in 1990, this program “involved ordering all ILL for in-print titles on a rush basis from vendors and publishers. Bucknell staff found that it was more cost-effective to purchase rather than borrow items requested by patrons. They also found that materials bought, rather than borrowed, made it into the hands of their patrons faster than ILL,” and that “subsequent circulation of these titles tended to be higher than for firm order titles.”³³ Kristine Anderson reports similar outcomes for Purdue, which implemented a “Books on Demand” program in 2000.³⁴ Through careful review of ILL requests, selectors for these programs identified items that increased the value of their collections beyond their ownership cost. Spokespersons for these programs agree that just-in-time acquisitions helps to make the selection process more accountable to patrons’ needs, tends to get materials into patrons’ hands more quickly than ILL, and, because just-in-time acquisitions allows patrons to hold onto items longer, tends to increase user satisfaction.³⁵

Combined with Ochola’s subject analysis, just-in-time acquisitions promises a method of access-informed collection development that makes use of ILL data both *before* and *after* collection decisions are made. The value of just-in-time acquisitions to subject analysis is twofold. First, by focusing on individual item requests, just-in-time acquisitions provides selection guidance beyond the level of LC subclasses to particular items. Second, when selectors track the effect of just-in-time acquisitions on the PEU and RBH within particular LC subclasses, this information provides feedback about the appropriateness of selection decisions to patrons’ needs.

Having identified the use characteristics of specific LC subclasses, selectors may focus just-in-time acquisitions on those subclasses that appear most likely to benefit from the program. For example, the first and third categories of use characteristics outlined in Table 1 recommend increased resource ownership. As suggested, in the case of the first category, if the percentages of total circulation and ILL borrowings outstrip the percentage of holdings, then this subclass is likely overused

and represents an area for growth. In addition to providing more access services, the selector should consider increasing resource ownership. Similarly, in the case of the third category, if the percentage of circulation is low compared with the percentage of holdings but ILL borrowings are high, then this subclass is likely underused and inappropriate to users' needs. In this case, the selector should consider a similar development strategy.

By selecting items requested through ILL for just-in-time acquisitions and subsequently tracking these items' effect on the deviation of PEU and RBH from their respective means, selectors may determine whether ILL requests are an accurate predictor of users' needs in that subclass. Presumably, if these requests do predict users' needs, then this will be reflected in a decreased deviation of PEU and RBH from their respective means, as well as a decrease in the "collection failure quotient"³⁶ of the subclass, indicating increased prescience. If decreases do not occur, then these requests likely do not adequately predict users' needs to inform selection in that subclass. However, regardless of whether just-in-time acquisitions has a positive or negative effect on subclass prescience, by tracking its effect on the deviation of PEU and RBH and on the collection failure quotient, selectors may augment their understanding of how patrons are using a particular subclass.

Consistent with Ochola, this study maintains that a minimal deviation of PEU and RBH indicates a well selected, highly prescient collection. Further, this study maintains that just-in-time acquisitions offers a more effective method of minimizing deviations than local knowledge alone. Of course, both hypotheses require testing. While just-in-time acquisitions now enjoys a growing body of literature to support it, and while the combination of access-informed subject analysis and just-in-time acquisitions clearly recommends itself, there appears to be no reported study that implements such an access-informed collection development strategy. This study recommends that future research programs make this connection between subject analysis and just-in-time acquisitions explicit and that access-informed subject analysis similar to Ochola's is the best method for maximizing selection outcomes.

IMPLEMENTING THE STRATEGY

By combining Ochola's subject analysis with just-in-time acquisitions, selectors may implement an access-informed collection development strategy that promises to bring greater accuracy, transparency, and accountability to decisions about access and ownership. By prioritizing

users' attempts to access information as the key indicator of need, selectors gain insight into how to serve them better. Of course, implementing such a strategy is contingent on the particular institutional setting and requires development of policy sufficient to meet local needs and expectations. Whether and how institutions address these implementation challenges depend largely on the time, financial, and technological resources they are able to bring to bear upon them.

In order to implement this strategy, libraries must maintain holdings, circulation, and ILL data sufficient to calculate and collate percentage of holdings, percentage of circulation, and percentage of borrowings for LC subclasses. In so doing, selectors must consider what effect subclasses with high percentages of non-circulating items or high in-house use may have on interpreting deviations in PEU and RBH. Selectors must consider whether to exclude certain items from percentage of holdings, whether to integrate in-house use statistics into percentage of circulation, and whether to exclude certain ILL requests from percentage of borrowings. For example, should calculations include large, highly specialized collections within a subclass where these are rarely used but are otherwise crucial to an ongoing research project? Or, should calculations include ILL borrowings for items the library already owns? Of course, answers to these questions should be informed by selectors' knowledge of the makeup of the particular collection and addressed in the implementation policy. Even where LC subclasses are not favorable to access-informed subject analysis, this analysis should help to identify them as such, and thus clarify strategies for their development.

In addition to developing the statistical elements necessary to support Ochola's subject analysis, libraries must develop just-in-time acquisitions programs that support development of identified LC subclasses. Doing so requires that implementation policy fully integrate subject analysis guidelines with acquisitions guidelines and account for communications across departments to insure integrity. Such integration is especially important for tracking the effect of just-in-time acquisitions on the use characteristics of LC subclasses. For example, if the rate of standing orders within a given subclass changes during an analysis cycle, recalculation of use characteristics for that subclass recommends that selectors be able to differentiate between just-in-time acquisitions and standing orders. Since this scenario is likely for LC subclasses demonstrating the first category of use characteristics outlined in Table 1, accurate data integration should be a high priority.

While subject analysis and just-in-time acquisitions cannot eliminate selection mistakes, working in conjunction, these methods add an additional

layer of analysis to the selection process. Combined with Ochola's access-informed subject analysis, just-in-time acquisitions offers selectors a means of determining how well ILL requests identify user needs. Additionally, just-in-time acquisitions helps fill the title selection gap left by subject analysis, as well as offering a source of statistical feedback after selection decisions are made.

CONCLUSION

Taken together, access-informed subject analysis and just-in-time acquisitions have the potential to improve selectors' balancing of the inevitable tension between access and ownership. Through subject analysis responsive to holdings, circulation, and ILL data, selectors may identify subject areas deserving greater or lesser ownership. Through just-in-time acquisitions and item-circulation analysis, selectors may identify titles within these areas that merit ownership, and those that do not. By integrating these methods, selectors potentially improve the quality of collection assessment, improve patron service and satisfaction, and develop collections of greater prescience. Together, access-informed subject analysis and just-in-time acquisitions offer an integrated collection development strategy that addresses a number of collection development challenges.

Although not currently discussed in the literature,³⁷ selectors should be able to assimilate this and other access-informed collection development strategies into their collection development policies. Because access-informed subject analysis permits analysis at levels of granularity addressed within the scope and subject area portions of the collection development policy, this may first be articulated there. Just-in-time acquisitions, combined with subject analysis, provides a secondary means of testing scope and subject area preferences. Depending on how well the library is able to estimate ILL borrowing costs, item-circulation analysis may also be used to run cost-benefit analyses on just-in-time acquisitions.

Of course, so long as patrons' needs outstrip the ownership capacity of academic libraries, the tension between access and ownership will never go away. Nor will purchasing mistakes. However, through the implementation of access-informed collection development strategies like those discussed here, ILL has the potential to take on a more active role in collection development. Again, ILL is not just an institutional stop-gap, allowing collection managers to avoid the hard question of

how to achieve a balance between access and ownership. Instead, it is a source of valuable information about user needs. While access-informed collection development strategies—and the technologies required to implement them—are not yet fully understood, these strategies hold the promise of bringing greater balance to access and ownership.

NOTES

1. See, for example, Laura Kane, "Access Vs. Ownership: Do We Have to Make a Choice?" *College & Research Libraries* 58:1 (Jan. 1997): 59-67.
2. This study uses "just-in-time acquisitions" to refer to any method of acquisition that involves purchasing items requested through ILL on an expedited basis where selectors have cause to believe that these items will augment the collection and be used with a frequency that merits their ownership cost. The literature uses a number of terms to refer to such methods, including "just-in-time acquisitions," "purchase-on-demand," and "books-on-demand." This study uses the former because of its emphasis on acquisitions.
3. See Ralph Wagner, *A History of the Farmington Plan* (Lanham, MD: Scarecrow Press, 2002).
4. *Ibid.*, 1.
5. Laura Kane, "Access Vs. Ownership," 60.
6. *Ibid.*, emphasis in original.
7. Gary Byrd and James Shedlock, "Association of Academic Health Science Libraries Annual Statistics: An Exploratory Twenty-Five-Year Trend Analysis," *Journal of the Medical Library Association* 91:2 (Apr. 2002): 194.
8. Laura Kane, "Access Vs. Ownership," 62-63.
9. Shelia Intner, "Differences Between Access Vs. Ownership," *Technicalities* 9:9 (Sept. 1989): 6.
10. *Ibid.*, 8.
11. See Sharon McCaslin, "Collection Development Decisions: Make Them for the Right Reasons," *Serials Librarian* 40:3/4 (2001): 325-329.
12. See, for example, G.G. Allen, "The Economic Efficiencies of Alternatives to Purchase and Loan of Library Resources," *IATUL Quarterly* 2:4 (Dec. 1989): 209-214.
13. F.K. Rottmann, "To Buy or to Borrow: Studies of the Impact of Interlibrary Loan on Collection Development in the Academic Library," *Journal of Interlibrary Loan & Information Supply* 1:3 (1991): 18.
14. Robert Broadus, *Selecting Materials for Libraries*, 2nd ed. (New York: H. W. Wilson, 1981): 52.
15. *Ibid.*
16. See R.W. Trueswell, "Some Behavioral Patterns of Library Users: the 80/20 Rule," *Wilson Library Journal* 43:1 (Jan. 1969): 458-61; Quentin Burrell, "The 80/20 Rule: Library Lore or Statistical Law?" *Journal of Documentation* 41:3 (Mar. 1985): 24-39; and William Britten, "A Use Statistic for Collection Management: The 80/20 Rule Revisited," *Library Acquisitions: Practice & Theory* 14:2 (1990): 183-189.

17. Of course, one should assume that full-text use will become a component of such access-informed subject analysis once the field acquires better means of tracking electronic materials access.

18. Gary Byrd, D.A. Thomas, and Katherine Hughes, "Collection Development Using Interlibrary Loan Borrowing and Acquisitions Statistics," *Bulletin of the Medical Library Association* 70:1 (Jan. 1982): 1-9.

19. Albert Henderson, "The Library Collection Failure Quotient: The Ratio of Interlibrary Borrowing to Collection Size," *Journal of Academic Librarianship* 26:3 (May 2000): 159-170.

20. *Ibid.*, 167.

21. John Ochola, "Use of Circulation Statistics and Interlibrary Loan Data in Collection Management," *Collection Management* 27:1 (2002): 1-12.

22. *Ibid.*, 2.

23. *Ibid.*

24. *Ibid.*

25. *Ibid.*, 3.

26. *Ibid.*, 5-6.

27. *Ibid.*, 7-9.

28. The following examples assume that, on the whole, ownership will be preferable to access, based either upon cost-benefit analysis, or institutional or missional preference.

29. Britten, "A Use Statistic for Collection Management," 188.

30. See, for example, Megan Allen, Suzanne Ward, and Tanner Wray, "Patron-Focused Services in Three U.S. Libraries: Collaborative Interlibrary Loan, Collection Development and Acquisitions," *Interlending & Document Supply* 31:2 (2003): 138-141; Kristine Anderson, Robert Freeman, and Jean-Pierre Herubel, "Buy, Don't Borrow: Bibliographer's Analysis of Academic Library Collection Development through Interlibrary Loan Requests," *Collection Management* 27:3/4 (2002): 1-11; Madeline Bombeld and Arlene Hanerfeld, "The Surprising Truth about Faculty Perception and Use of Collection Development Opportunities: One Library's Case Study," *Against the Grain* 16:2 (Apr. 2004): 18, 20, 22; Suzanne Ward, "Books on Demand: Just-In-Time Acquisitions," *Acquisitions Librarian* 14:27 (2002): 95-107; and Suzanne Ward, Tanner Wray, and Karl Debus-Lopez, "Collection Development Based on Patron Requests: Collaboration Between Interlibrary Loan and Acquisitions," *Library Collections, Acquisitions, and Technical Services* 27:2 (Sum. 2003): 203-213.

31. Alberta Comer and Elizabeth Lorenzen, "Biz of Acq-Is Purchase-On-Demand a Worthy Model? Do Patrons Really Know What They Want?" *Against The Grain* 17:1 (Feb. 2005): 76.

32. Ward, Wray, and Debus-Lopez, "Collection Development Based on Patron Requests," 204.

33. *Ibid.*, 204-205.

34. Anderson, Freeman, and Herubel, "Buy, Don't Borrow," 1.

35. See, for example, Ward, "Books on Demand," 103.

36. Henderson, "The Library Collection Failure Quotient," 159-170.

37. Explicit and/or thorough integration of access-informed methodologies is surprisingly lacking from several contemporary treatments of collection management and collection assessment. See, for example, G.E. Gorman and Ruth Miller, *Collection Management for the 21st Century: A Handbook For Librarians* (Westport: Greenwood

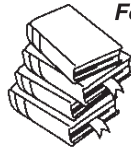
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