

Balancing Bananas: Collection Assessment of Patron-Driven Acquisitions

Gabrielle Wiersma
University of Colorado-Boulder, gabrielle.wiersma@colorado.edu

Rhonda Glazier
University of Colorado-Colorado Springs, rglazier@uccs.edu

Denise Pan
University of Colorado-Denver, dpan@uw.edu

Stephanie Spratt
University of Colorado-Colorado Springs, sspratt@missouriwestern.edu

Follow this and additional works at: <https://docs.lib.purdue.edu/charleston>



Part of the [Collection Development and Management Commons](#)

An indexed, print copy of the Proceedings is also available for purchase at:

<http://www.thepress.purdue.edu/series/charleston>.

You may also be interested in the new series, Charleston Insights in Library, Archival, and Information Sciences. Find out more at: <http://www.thepress.purdue.edu/series/charleston-insights-library-archival-and-information-sciences>.

Gabrielle Wiersma, Rhonda Glazier, Denise Pan, and Stephanie Spratt, "Balancing Bananas: Collection Assessment of Patron-Driven Acquisitions" (2015). *Proceedings of the Charleston Library Conference*. <http://dx.doi.org/10.5703/1288284316308>

Balancing Bananas: Collection Assessment of Patron-Driven Acquisitions

Gabrielle Wiersma, Head of Collection Development, University of Colorado–Boulder

Rhonda Glazier, Director of Collections Management, University of Colorado–Colorado Springs

Denise Pan, Associate Director for Technical Services, Auraria Library, University of Colorado–Denver

Stephanie Spratt, Electronic Resources and Serials Librarian, University of Colorado–Colorado Springs

Abstract

The libraries in the University of Colorado (CU) System have been using patron-driven acquisitions (PDA) to build a shared collection of e-books for many years. This paper presents our experiences as both early adopters of PDA and libraries with longstanding PDA e-book programs and describes an analysis of how PDA has impacted collections at each of the libraries in the CU System.

Introduction

The University of Colorado system is comprised of five separately administered libraries, located at four campuses, at three institutions (Boulder, Denver, and Colorado Springs). The materials budget for each separately administered library ranges from \$1.3 million to \$10.8 million US dollars, and the full-time enrollment (FTE) of students varies from nearly 9,000 to 34,000. The libraries jointly purchase journals, databases, and e-books in order to share costs for core resources and to satisfy an increasing expectation that faculty and students have access to the same content regardless of the campus to which they are primarily affiliated.

In 1999, CU–Boulder participated in one of the first patron-driven acquisition (PDA) pilots on the NetLibrary e-book platform and managed by the Colorado Alliance of Research Libraries (Alliance). The goal of the pilot was to acquire as much e-book content as possible and to make it available to all participating members. The group included the Denver Public Library along with five to seven academic libraries. Outside of price caps on the cost for an individual title, there were few parameters. For one year, MARC records were loaded into member libraries' catalogs and Prospector, the union catalog for the Alliance. Costs were divided among Alliance members using a prorated formula based on library size and materials budgets.

During the pilot, CU–Boulder triggered a substantial number of books about bananas as the result of an undergraduate research assignment. In the spring semester of 2001, an undergraduate geography class at Boulder was assigned to research the production of a crop in a developing country. While the instructor intended to teach students about the economics of crop production and the impact of globalization, all 150 students were given the same instructions to research farm-to-market production of bananas in Central America. Although CU–Boulder held some print books on this topic, students quickly discovered and accessed the NetLibrary e-books. Since the PDA program was established to automatically purchase based on simultaneous use, costs tripled—from \$11,000 to more than \$37,000—in three months mostly due to multiple, unmediated requests for banana books. The pilot was largely considered a failure because of the rapid rate at which funds were expended and because it resulted in the selection of materials that were deemed inappropriate for the collection. However, it also demonstrated user demand for e-books and illustrated the librarians' roles in the selection of materials in academic libraries.

Ten years later, CU–Boulder was very reluctant to revisit PDA. However, e-books were gaining popularity, while physical space was on the decline. CU–Boulder decided to try again, but with a very different approach. In 2009, CU–Boulder ran a small pilot where fewer than 1,000 e-books

in five subject areas were loaded and available for PDA. Overall, the pilot was very successful and cost was limited. During the pilot, less than \$5,000 of the initial deposit was spent. At the end of the pilot 130 or 13% of e-books were used but not purchased. The CU system was able to provide access to e-books valued at approximately \$30,000 at no cost. To read more about CU–Boulder’s PDA program, see the 2011 Charleston Conference proceedings for “Patron-Driven E-Book Solutions: Moving Beyond the Banana Books Incident” (<http://dx.doi.org/10.5703/1288284314973>). In addition, CU-system PDA workflows are described in the 2012 Charleston Conference proceedings: “Ebb and Flow: A Selection to Access Workflow for Consortia PDA” (<http://dx.doi.org/10.5703/1288284315096>).

In 2010, the CU System of five libraries (Boulder, Colorado Springs, Auraria, Health Sciences, and Law) launched a consortial PDA program for MyiLibrary e-books. Unlike previous pilots, the current PDA model utilizes custom, subject-based profiles to identify content within the scope of the libraries’ collection development policies. PDA e-books are loaded based on instructions in CU–Boulder’s approval plan, but all of the CU libraries load the same discovery (unpurchased) records; significant usage at any campus can trigger a purchase, and all of the purchased content is accessible across all campuses. Since this has become a shared collection, the profiles have been augmented to acquire more e-books in areas that all of the libraries collect, and have been expanded to include subject areas that CU–Boulder does not typically collect (e.g., nursing, sports medicine, criminology, and law).

This mediated version of PDA has increased our libraries’ comfort levels; however, it is unclear if PDA is working for all subjects or different types of libraries in the consortia. As such, librarians in the CU system decided to study the impact on the collection at each library as it relates to the MyiLibrary e-book PDA program. The analysis explored several questions including:

- Which subjects have the most PDA e-book records loaded?

- Which subjects are triggering the most purchases?
- Which library is triggering those purchases?
- How does a library analyze the impact of a PDA e-book program on the print book collection?
- As our e-book collection grows, what is the impact on print circulation?
- Are we building collections that support the teaching and research needs of our campuses given existing resources?

Methodology

In order to assess the current PDA program, librarians collected data about the number, subject, cost, and usage of both print and e-books acquired from 2009–2014. This allowed the analysis of data from right before the pilot project began through three years of the PDA program. The cutoff date of 2014 was chosen because a full year of circulation data was preferable for analyzing the print collections. In addition to the aggregate data, books published about chemistry, philosophy, and political science were chosen for additional analysis. These three subjects were chosen because all three campuses had programs in these areas; they represent different disciplines that have different research and resource needs (sciences, social sciences, and humanities); and they have narrowly defined LC call number ranges that facilitate analysis. Usage and circulation statistics for the titles loaded or purchased between 2009 and 2014 were analyzed. While it is evident that online usage stats and circulation are not necessarily equivalent metrics, they do indicate a use and implied need for materials. This data was used in a comparative analysis of print to e-books and also to connect the availability of resources to campus demographic data.

Assessing the Consortial PDA Program

CU’s PDA program experienced significant growth both in terms of the number of books available and titles purchased in the first two years of the program. Since then, the libraries have been purchasing e-books at an increasing (but

manageable) rate. Although we continue to load and have not weeded records; growth rates for purchased e-books have increased by 20–25% over the past three fiscal years. The CU system libraries currently provide access to more than 20,000 e-books, and have considerable variation in the purchasing patterns and number of records loaded for each subject.

The subject distribution of the e-books that are available varies depending on the format preferences and e-book availability for each subject. The largest number of e-book titles loaded are for political science, followed by business, education, religious studies, engineering, anthropology, law, and sociology. The higher number of science subjects was expected because the profile was designed to be e-preferred for the sciences, but the number of social sciences in the top-ten list was surprising because the profile change to e-preferred for the social sciences happened only recently.

Additional analysis was done to identify the subjects that have triggered the most purchases. Education tops the list, followed by psychology, business, political science, religious studies, anthropology, engineering, biology, criminal justice, and sociology. With the exception of law, this mirrors the list of subjects that also have the most records loaded. This suggests that we are loading e-books in subjects that will get used, but further analysis revealed that purchase rates did vary by subject. On average, the libraries purchased 15% of the titles loaded as PDA e-books. While the top-ten lists of subjects with the most records or that have triggered the most purchases did not include many sciences, subjects like computer science, earth sciences, math, physics, psychology, and sports medicine all had above average purchase rates. In other words, the library may not be loading as many records for these subjects, but we are purchasing a higher percentage of available titles. In contrast, subjects like business, law, political science, and religious studies have below average purchase rates. It could be an indication that many of the titles in these subjects are not needed, or it could be that the research and publication process takes longer in the social sciences and humanities (which tend

to be more monograph-based disciplines) and these titles will eventually be used. It could also indicate that researchers in these disciplines do not use e-books (or would prefer print), or that the libraries are simply saving a lot of money by only purchasing the titles that are needed and used instead of buying all of these titles outright. Further analysis is needed to determine why e-books are not being purchased or are purchased at a slower rate in some subjects.

Usage statistics provided further evidence of how e-books are being used in different subject areas. Reports from the MyLibrary administrative portal contain information about each time a title is accessed including date, time, IP address, broad LC classification, and some subject categories. Comparing the subjects that have the highest use to the subjects with low or zero usage illustrated how e-books are used before and after a purchase. There is significant usage for e-books classed in H (Social Sciences), Q (biology and other life sciences), and B (religious studies and psychology). Again, the subject areas that had significant usage included the subjects with the most records being loaded and titles being purchased. However, further investigation revealed that in some cases there is a lot of concentrated usage on a few titles. This was particularly pronounced in class Q (biology and other life sciences), and L (education) where only five titles generated 20% of the use within that classification. Further analysis is needed to look for patterns or characteristics of the purchased books to better align the approval plan profiles with materials that tend to get used.

Because this is a consortial PDA, it was important to determine which library was triggering a purchase. Each library contributes funds to support the PDA program, and costs are largely based on usage and ability to pay. The libraries analyzed usage statistics to track how usage varied by campus and to determine which library was triggering the most purchases. While trying to do this analysis, it became clear that we cannot tell which library is triggering the purchase, but we can look at usage to see which libraries are generating enough use that could lead to a purchase by analyzing our usage reports, which

include unique IP addresses for each campus. The analysis found that CU–Boulder generates 62% of all usage followed by Auraria (Denver) at 25% and UCCS (Colorado Springs) at 11%, which was predictable given the sizes of our institutions and the programs supported at each campus. When looking at the data at the subject level, interesting variations were discovered. For example, in chemistry CU–Boulder generated 88% of the usage with Auraria and UCCS each generating 4%. The Health Sciences Library’s usage also generated 4% of the chemistry titles purchased.

Impact on Print Collections

Considerations about consortial PDA e-books naturally led to questions about the print collection at each campus, specifically:

- Are we buying roughly the same number of books in each subject area as we were before PDA?
- If we are buying more e-books, does that mean we are purchasing fewer print books?
- If we are buying fewer print books, are we buying more e-books?
- Or has the overall number of books/rate of growth remained the same despite the introduction of e-books as a format alternative?

Continuing the focused analysis on chemistry, philosophy, and political science, print and consortial PDA e-book purchases were compared. Several interesting trends were noticed. While all three libraries are purchasing fewer print titles each year, the impact of the PDA on the print collection was more subtle than expected. With the number of e-books static across institutions, the percentage of impact on the print collection should have been greatest on the smallest collection (UCCS). However, Auraria’s collection was impacted the most by the PDA program with 70% of the chemistry collection in the e-book format; for UCCS, the ratio of print to e-books was

closer to 50%, and e-books made up approximately 35% of CU–Boulder’s collection.

Just as it was important to analyze usage for e-books, it is important to look at circulation of the print titles. As expected, circulation of titles purchased between 2009 and 2014 in chemistry, philosophy, and political science declined each year. This was expected because titles purchased in later years have fewer chances to circulate than those titles purchased in 2009. This observation led to a secondary analysis for print. In order to compare usage across subjects, the turnover rate for chemistry, philosophy, and political science was calculated. Turnover rate is the number of circulations divided by the number of available titles. For all three libraries, chemistry had the highest turnover rate, followed by philosophy and then political science. Turnover rate for print titles was then compared to a turnover rate of e-books added to the PDA program from 2009 to 2014. The turnover rate for e-book titles was less than the turnover rate for print materials in all three subject areas; however, the turnover rate for e-books followed the same pattern as print with the highest turnover rate in chemistry, followed by philosophy and then political science.

Supporting Teaching and Research

Although each library in the CU System supports programs in chemistry, philosophy, and political science, the number of faculty, students, and degrees offered varies from one campus to another. The analysis needed to include some of this demographic data in order to determine whether or not an individual library’s collection was meeting the teaching and research needs for their campuses. Key data included number of faculty and undergraduate and graduate student FTE. To make this data more meaningful, the ratio of titles available to undergraduates, graduates, and faculty at each institution was calculated. This provided an approximate number of print and e-books per FTE for each subject and campus. This data indicates collection size relative to the users it supports and is a metric that can be compared across institutions and subjects.

Conclusion

The findings discussed during the presentation were preliminary. It will be important to delve deeper into the data to answer the more complex questions. For example, can we find a correlation between user demand for monographs by format and discipline? Are our assumptions about how a particular discipline uses information accurate—and can we find the data to verify those assumptions? As the analysis continues, we will be updating and revising the different methodologies used in this study. One of the goals of this project is to develop methodologies that allow for a better comparison between institutions, disciplines, and formats.

CU's consortial PDA program for e-books highlights some of the benefits and challenges of shared collection development. It is clear that when participating in a consortial PDA program, individual institutions give up some control over

collection development because individual libraries purchase content based on usage at any participating library. In addition, libraries are not only shifting collection building responsibility to other libraries, but the PDA model empowers patrons affiliated with any of the institutions to make purchases on our behalf. In many cases, students and faculty from multiple institutions are triggering the purchase of materials that are accessible for all CU libraries. Some of the libraries are building collections in areas that are not researched or taught on a particular campus. Overall, the librarians agree that the consortial PDA program supports our goal of building a shared collection of e-books that is accessible to anyone affiliated with the university. This collection provides access to thousands of e-books and serves the overall greater good of the system. Nevertheless, the libraries will continue to assess how well the program meets the needs of each campus and the consortia will adjust accordingly.