

Seton Hall University

From the Selected Works of Lisa M Rose-Wiles

July, 2014

Use, experience and future of e-books from University Libraries

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URC 2013 Summer Grant Final Report

Dr. Lisa Rose-Wiles, University Libraries

“Use, experience and future of e-books from University Libraries”

Submitted July 31, 2014

Like most academic libraries, Seton Hall University Libraries have been increasingly investing in eBooks. This is partly a response to budget and space constraints, but also reflects an expectation that eBooks will follow the pattern of electronic journals and gain in popularity. In this research project I examine the use of our eBook collections and report on opinions of eBooks gathered from informal interviews with students and faculty members.

Background

The University Libraries have owned a small eBook collection from NetLibrary (since acquired by EBSCO) for many years, but the collection and the platform became outdated and the books were rarely used. We began exploring updated eBooks offerings in 2009. I elected to select and purchase 65 individual science and health science eBooks from ebrary (now part of ProQuest) as a pilot eBook project. At the same time our business librarian Dr. Richard Stern chose a pre-selected ebrary eBook package of approximately 7,000 business books published between 1998 and 2008. Initial usage statistics for the individually-purchased books were promising, with almost 50% of titles being used at least once. Use of the much larger business collection was lower at about 7%, but in both cases usage was higher than checkout rates for print books in their respective subjects and date ranges (Rose-Wiles & Stern, 2010).

Following our initial success, we began a pilot patron driven acquisition (PDA) eBook project from ebrary in October 2011, initially focusing on science and medical science books but since expanding to other subject areas. The advantage of the patron driven model is that titles can be made available through the library catalog, with no payment being due until individual books are “triggered” by a pre-determined threshold of use (Nixon *et al.*, 2010) In our case the thresholds for triggering a book are one of the following: three separate user sessions of ten minutes or more, a continuous (active) session of 30 minutes or more, or printing or downloading one or more chapters or sections. Most PDA eBooks can only be used by one individual at a time; if a title is in use one may join a ‘wait queue’ and receive an email when it becomes available. Subject librarians choose titles individually rather than downloading a collection selected by a vendor or publisher, allowing tighter control of the titles that are available for patrons to select (Dinkins, 2012). In 2012 University Libraries added two large leased collections of e-books to our collection. Academic Complete from ebrary, comprising over 90,000 books, was added in January 2012 and the EBSCO eBook collection comprising almost 120,000 books was added in October 2012. Both collections are ‘packages’ of pre-selected titles, with titles periodically added and withdrawn. In contrast to the PDA collection, both allow unlimited simultaneous use.

Use of Patron Drive Acquisition (PDA) books from ebrary

Since beginning the PDA pilot project in October 2011 most SHU librarians have added eBooks to their profiles, and subsequently to the library catalog, on a regular basis. As of July 2014 there were 4,595 PDA eBooks available for viewing or downloading through the library catalog or SHUsearch box, double the 2,279 available in July 2013 (Table 1). The selections are distributed across 24 different subject “profiles” - folders of books selected by librarians in

various subject areas. The distribution is quite well balanced between the humanities and other subject areas, with 46% of titles selected for areas in the sciences, social sciences, business, health & medical sciences and nursing. This is a significant contrast to our print book collections, which is heavily biased toward humanities subjects that fall under our National Endowment for the Humanities (NEH) grant (Rose-Wiles, 2013).

My records of books added to my profiles since October 2011 indicate that about one third (756 titles) disappeared between late 2012 and early 2013 (Table 2). About 200 of these were likely removed after they were triggered for purchase (Table 3), and additional titles were removed when a few publishers, most notably Mosby and Jones & Bartlett Medical, withdrew from ebrary's PDA program. It is also likely that some titles in my profiles were included in ebrary's Academic Complete eBook collection and were thus removed as duplicates when we leased that collection. However, the disappearance of so many titles is perplexing. We pursued this issue with ProQuest but they failed to provide an explanation. The disappearance of so many titles makes it difficult to calculate trigger rates accurately (a further 279 titles had disappeared from my profiles by July 2014), but I based my calculations on the numbers of eBooks actually available according to our subject profiles.

According to ebrary's reports, 216 eBooks (9.5% of all titles in our PDA profiles) had been triggered by the end of June 2013 (Table 3). An additional 83 titles had been triggered by the end of June 2014 for a total of 299, representing 6.5% of our total PDA collection, which is a considerable decline. However, two very large profiles (Asian studies and Sociology) were added recently, rapidly inflating the number of titles available. Based on the June 2013 figures there is a significant correlation between the number of PDA titles available in a subject area and

the number triggered ($r=0.79$, $n=14$, $p<0.005$), but this was not the case for July 2014, suggesting that there is a considerable lag time between titles being added and triggered.

There is variation among subjects in the number and proportion of titles triggered, with the highest proportions being in education, nursing and women's studies. The most common cause of triggering was "view" (51%) followed by "chapter download" (33%), "copy" (15%) and "print" (6%). To date the price of PDA books triggered for purchase is \$24,685.41, an average of \$82.56 per book (Table 3).

I calculated the number of titles in each of my profiles that were triggered during five periods: from inception beginning in October 2011 through June 2012, July-December 2012, Jan-June 2013, July-Dec 2013 and Jan-June 2014 (Table 4). There is no consistent pattern across subject areas, but the overall number of books triggered each period has typically decreased rather than increased, despite active collection building period, showing eBooks during library instruction periods and publicity through my research guides and the library blog. There was a slight increase in the most recent six month period which is encouraging, but we have yet to recapture the trigger rates of our initial PDA year. The total number of books triggered across all subject profiles show the same pattern of reduced triggering over time. This is contrary to our expectation that eBooks would become more popular with increasing availability, exposure and promotion.

Another measure of PDA usage is the total number of books opened and viewed, including those that did not meet any of the thresholds for being triggered. Ebrary usage statistics include Counter Book Reports 2, 3 and 5, but not Book Report 1. The recommended eBook reports, especially for comparative purposes, are Counter Book Report 1 or "in-house reports that get at user sessions for each title" (Thomas *et al.* 2013, p. 14). Unfortunately, ebrary's counter report

does not provide an option to restrict statistics to PDA books, which is problematic for us as we also subscribe to ebrary's Academic Complete eBook collection. I therefore used ebrary's site activity report, which includes number of sessions, unique documents viewed, page views, pages printed, and pages copied. The site activity report for the period October 2011 through June 2014 showed that although only 299 books in the PDA collection were triggered, 982 books ("unique documents") representing 20% of available titles, had been viewed at least once (Table 5). About 30% of the eBooks that were viewed were subsequently triggered for purchase, and 43% of books viewed had chapter or section downloads (PDA books typically cannot be downloaded in their entirety). The ebrary site activity report also shows that over 23,000 eBook pages were viewed, an average of 24 pages per book. A total of 949 pages were printed, an average of about one page per book. Medical books (by ebrary's subject designation) were the most popular.

The finding that less than one third of 'viewed' books reached trigger thresholds and led to a purchase represents a significant cost saving for the library. A total of 982 books were viewed at least once but we only incurred expenses for the 299 that were triggered, making the average cost per book viewed \$25.14. If all 982 had been purchased at the average triggered-book price of \$82.56, the cost would have been over \$80,000 instead of \$24,685.41. The difference of over \$55,000 is more than double the 2013-14 book budget for the sciences, health sciences and nursing.

I also looked at our ongoing usage statistics for the 299 titles that have been triggered (Table 6). There have been nearly 37,000 page views (average 124 per book) and 589 chapter downloads (average 2 per book). Given the disappointingly small proportion of the PDA

collection that has been used, it is encouraging to find that usage of the books that are triggered is more robust.

Comparing use of our ebrary PDA books with print books is problematic. No available eBook usage data is directly comparable with circulation (check out) data for print books. Comparing print and eBook use in different subject areas is also difficult because ebrary subject profiles differ from the Library of Congress classification on which print book holding and circulation data are based. However, to give an approximation, the average annual circulation for print books in 2011-12 was 7.3%, ranging from 4.4% for business to 8.5% for health and medical science (Rose-Wiles 2013). The proportion of PDA books triggered between October 2011 and June 2013 (more than 1.5 years) was 9.5%, ranging from 2.6% for business to 27.9% for nursing. Multiplying the 2011-12 print circulation data by 1.5 to approximate 18 months gives an average circulation of 11%, ranging from 6% for business to 12.8% for health and medical science and nursing (Table 6). The proportion of eBooks triggered through 2014 was 6.5% and the proportion viewed was 20%, suggesting that the use of PDA eBooks does not differ substantially from the use of print books. Librarian colleague John Irwin and I plan to analyze data for use of print books in the library (i.e. books that are used but not checked out) and it will be interesting to see how these figures compare with eBook use.

Use of Academic Complete lease eBook collection from ebrary

The site activity report for Academic Complete shows that 8,995 books (“unique documents”) were viewed at least once between our initial subscription in January 2012 and June 30, 2014 (Table 8). This represents about 8% of the approximately 111,500 book collection, which appears in our library catalog under location “ebrary temp”. One caveat here is that the designation “unique documents” applies only within each month for which data were provided;

some titles were almost certainly viewed in more than one month. Over 240,000 eBook pages were viewed, an average of 27 pages per book, similar to the average of 26 for PDA books. Over 10,000 pages were printed, for an average of 1.1 pages per book, again similar to the PDA books. 1,879 book chapters or sections were downloaded (representing 21% of titles viewed) and 710 complete books (8% of books viewed) were downloaded. The printing and downloading procedures are the same as for the ebrary PDA, but some Academic Complete books may be downloaded in their entirety. Adobe Digital Editions (ADE) is required in order to download complete books to a standard computer desktop or laptop. Most books in the Academic Complete collection permit unlimited simultaneous users.

The Academic Complete eBook collection is used less than our PDA eBooks in terms of percent of available books viewed (8% vs. 20%) and percentage of books viewed that resulted in some downloading (29% vs. 43%). However, the Academic collection is very large and diverse. Titles are pre-selected by ebrary and not by SHU librarians so the collection includes older books popular works, and title subjects that do not necessarily correspond with our academic foci. It is therefore not surprising that a large proportion of books are not used at all, and that some are probably viewed only briefly compared with the individually selected, curriculum/research focused PDA books. Indeed, it is surprising (and disappointing) that the difference in usage is not greater.

In contrast to the pattern of declining use of PDA books, use of Academic Complete increased rapidly after the initial six months and has continued to increase slowly but steadily over the past two years (Figure 2). The Academic Complete collection also is quite cost effective. The current annual subscription cost \$11,324 per year, so the cost for the 30 months considered here was approximately \$28,000, compared with the almost \$25,000 cost for the 299

PDA books triggered over a 28 month period. Based on subscription cost, the average cost per Academic Complete book viewed was \$1.26; the average cost per complete book downloaded was \$15.95. According to ebrary's title download report, the total list price for the books that have been viewed would exceed \$300,000, or \$67 per book.

Use of EBSCO eBook collection

EBSCO's reporting portal does offer a Counter Book Report 1, as recommended by Thomas *et. al* (2013). However, in contrast to 2013, the current report has no option to limit eBook statistics to the Academic Collection that we subscribe to, so I had to obtain a custom report from EBSCO (Table 9). The EBSCO collection differs from ebrary PDA and Academic Complete books in offering "eBook full text" (read online) or "download this eBook" (offline) for a period of 1-7 days. As with ebrary books, users must create and sign into an account in order to download titles. There are no options to download or print single chapters or sections, the most popular choices for ebrary eBooks.

EBSCO usage statistics indicate 19,322 full text book views between October 2012 and June 30, 2014 (Table 9). This includes 18,439 "unique titles" (i.e. different books), representing almost 14% of the nearly 135,000 but as with the ebrary statistics, the "uniqueness" is only within each reporting month, and some titles may have been used in multiple months. EBSCO does not provide number of sessions, number of pages viewed, copied, or printed, but does provide "abstract views". eBook records do not include abstracts; this simply means that a user opened a record that was returned in a search. Almost two thirds of "abstract views" led to a user opening the full-text of a book, but only 9% led to downloading the book. EBSCO eBooks do not offer the option to download a book chapter or section.

Again in marked contrast to our PDA, use of the EBSCO eBook collection increased rapidly and has remained stable over the past two six-month periods (Figure 3). With an annual subscription cost of \$10,175 and a high rate of use, the EBSCO eBook collection is extremely cost effective. The eBooks cost only \$0.55 per use and less than \$6 per download.

Comparison of collections

It is difficult to directly compare EBSCO eBooks with ebrary books – especially PDA books – because printing and downloading options differ as well as the statistics available. However it is clear that a higher percentage of PDA books are viewed and (partially) downloaded compared with our leased collections (Table 10). That a hand-selected collection geared toward our institutional interests is used more than a pre-selected, non-customizable package is to be expected (we would be extremely concerned if this were not the case), but we had hoped that PDA usage would be much higher and show a pattern of increasing rather than decreasing use. It is possible that the small PDA collection is being “swamped” by the much larger leased collections and/or that our selections do not match user expectations.

The low rate of downloading Academic Complete and EBSCO eBooks (only about 8% of books viewed) is somewhat surprising, but EBSCO offers no option for chapter and section downloading, which are popular with ebrary books: 43% of PDA books viewed and 21% of Academic Complete books viewed had chapters or page selections downloaded. The procedure for downloading and reading an entire book through Adobe Digital Editions is time consuming and not intuitive, which likely discourages downloading entire books. One encouraging finding across all eBook collections is that the average rate of printing is only slightly more than one page per book; we had initial concerns that users would opt to print large sections of eBooks, thereby rather defeating the purpose of having them.

All three collections are more cost effective than outright purchase of equivalent print books, especially since eBooks do not take up physical space and require little maintenance. EBSCO eBooks afford the best value at only \$0.55 per use and under \$6.00 per download (Table 10). This collection is used almost twice as much as ebrary's Academic Complete, but eBooks are likely found through EBSCO Discovery Service (EDS), which tends to display EBSCO results before ProQuest (ebrary) results. I plan to investigate the extent and effect of this potential bias as well as the degree of overlap between the two leased collections.

Impact of eBooks on SHU library collections.

There is no doubt that the addition of eBooks greatly enhances our collections in terms of number and currency of titles. An analysis of our collections in chemistry, nursing, education, diplomacy and business compared with selected peer institutions showed that eBooks made up about 25% of our book holdings and 50% of books published since 2000. The proportion of recent books represented by eBooks ranged from 17% in nursing to 70% in chemistry and 80% for international relations (Figure 1). In almost all cases having eBooks moved us from bottom or close to bottom in comparison with our peers to middle or best. However, while holdings statistics and cost saving are important issues for our library, especially in these difficult budgetary times, we must also consider our users' opinions of eBooks.

SHU student and faculty opinions of eBooks

During the summer of 2013 I conducted approximately 35 informal interviews with individual students (and also a few faculty members) and three sessions with groups of three students. I have not yet analyzed all of the results and plan to collect further data, but even this

small sample shows clear patterns. At one extreme are a few individuals who “love eBooks” and “think they are wonderful”, while at the other extreme are some who “hate eBooks” and cannot think of any circumstance where they would not find or purchase a print book rather than try to read an eBook. The majority of responses fell between the two extremes, with a common theme being appreciating the convenience of eBooks, but disliking reading extensively “on the screen”. Table 11 lists the most common reasons expressed, which essentially fall into two groups: physical discomfort (eye strain, headaches etc.) and concentration/ retention problems (difficulty focusing, getting distracted, inability to make notes, highlight etc.) Only a few students were aware of the “info tools” features of ebrary books, which allow online highlighting, annotating, cutting and pasting and saving to a virtual “bookshelf”, so promoting these features might improve some users’ perceptions of eBook utility. However several students did comment that highlighting and annotating online is “not the same as having a real book” to mark up.

Issues with physical discomfort are not unique to eBooks but afflict most who spend hours working on computers, especially if their workspace and lighting are not ergonomically appropriate. However the problems are exacerbated when one is focused on a single task of reading lengthy passages or an entire book. The high frequency of chapter or section downloads, particularly for ebrary PDA books, and the low frequency of whole-book downloads supports the opinion of many students in this study (and earlier literature) that eBooks are best for relatively short readings or searching for specific information. In addition, a downloaded chapter or section may be subsequently printed and physically handled, annotated and highlighted within our students’ free printing limits.

Unfortunately my preliminary study did not systematically address whether students are predominantly reporting on eBooks read for pleasure or general interest vs. required class

readings, research-related or text books. Some of the most vehement detractors of eBooks were nursing students responding to their online text books. Part of the issue seems to be lack of choice: as one student described it - “we have to buy the eBooks whether we want to or not and then you have to spend more money if you want to buy a print copy”. Specific problems were difficulty reading lengthy and detailed text passages and the unsuitability of the eBook format for studying, especially in the small group configuration much favored by our nursing students.

A less common but recurring set of issues with eBooks relate to access and downloading. All respondents that I spoke with knew that the library had eBooks, but not all knew how to find them in the library catalog or how to limit searches to “format eBook”. In addition, many did not know that they needed to create an ebrary account to print or download ebrary books and a separate EBSCO account to download EBSCO eBook. One student reported trying to sign in to EBSCO eBooks with her ebrary password and becoming frustrated when “it didn’t work”. The most common complaint was the multi-step process for downloading, which includes initial installation of Adobe Digital Editions (ADE). The new helix computers distributed to the class of 2017 make this particularly irksome because it is unclear where new programs have been installed and how to access them. Finally ADE is a very basic PDF based program which offers minimal functionality for reading; one cannot even turn pages easily. Its main function seems to be to exert digital rights management by removing a downloaded book within a specified period (one to seven days for EBSCO eBooks), rather than to provide a productive online reading experience. Indeed, I suspect that many publishers support ADE in order to limit eBook use and protect their print book markets.

The preliminary findings of my research show that eBooks are a cost-effective way to enhance our library collections, but they only receive moderate use. The pre-selected packages

are used somewhat less than our individually selected PDA books, but provide our users with a vast array of choices at very low cost. The use of our PDA books is frankly disappointing and seems to be declining. Feedback from our users illustrate the disjoint between the popular view that eBooks are simply a digital version of print books and the reality that eBooks function differently from print books and should therefore differ in design.

Continuing and future work

Two questions that I plan to ask systematically in the future are (1) what kind of device respondents were reading eBooks on – e.g. their SHU laptop, an iPad or an eBook reader such as a Kindle and (2) what type of reading are you referring to (pleasure reading, required for class, text book etc.) I also plan to develop a more detailed and objective set of questions and/or questionnaire and obtain a larger sample of eBook opinions. However, my preliminary results suggest that many users are disappointed and/or frustrated by their eBook experiences and that there is ample room for improvement in both the access to and design of eBook platforms.

E-books can be challenging for both publishers and users. As a result of this study I had hoped to meet with several publishers and developers in the future to discuss ways in which eBooks can be improved. Unfortunately I was unable to evoke much interest in the issue. I had several conversations with a developer from Pearson's, which specializes in textbooks, but after two proposed meetings were cancelled due to snow conditions this did not progress further. My impression from speaking with both publishers and librarians at various meetings and venues is that publishers are not particularly interested in improving their eBooks, largely because they fear that eBooks threaten their print sales. Some hope arose during my recent trip to the United Kingdom, where I had a long discussion with a representative from Blackwell Publishing. He delivered the welcome (although long overdue) news that European publishers plan to

collaborate in developing and promoting a shared eBook platform on which books purchased from any participating publisher can be used. He was uncertain how the digital rights management or platform access fees would work, but expressed interest in further discussion and passing on to the publisher's group that librarians in the United States are keenly interested in this development. I also spoke with a librarian at the University of Liverpool who sits on the board of IOP (Institute of Physics) publishing and thought that they would be interested in discussing eBook enhancements, so I will be pursuing that lead as well.

I plan to try purchasing some eBooks directly from publishers. Our current policy of buying or leasing only from ebrary and EBSCO is designed to minimize students' confusion over different platforms, but based on conversations with librarians at the University of Liverpool, students do not find this confusing and vastly prefer the publisher platforms over those of vendors such as ebrary.

In the fall 2014 semester I will be working with Dr. Cherubim Quizon (Sociology, Anthropology & Social Work) to develop several projects for students in her qualitative methods class. We plan to guide students in conducting anthropological research on how students use eBooks (actual observations as well as interviews and/or focus groups) and their views on advantages, disadvantages and possible improvements to eBooks, particularly those available through our library.

Meantime our focus in the library will be to better publicize our eBook collections and the tools that they offer, and to provide better guidelines for how to access, download and manipulate eBooks. My colleague Dr. Richard Stern recently proposed using QR codes to promote eBooks in the library, a promotional device that has been successfully used at the University of Liverpool libraries.

Acknowledgments

Thanks to Gary F. Daught (Director of Library Services, P.H. Welshimer Memorial Library, Milligan College, TN) and Andrew Welch (Librarian for Discovery Services & Technology, Cowles Library, Drake University, DeMoines IA) for helpful discussions regarding EBSCO eBook statistics – in particular for the comparison of standard and COUNTER reports. Thanks also to Sarah Roughley (University of Liverpool) for organizing meetings and discussions during my recent visit, and to the many librarians there who cheerfully answered my questions.

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**Figure 1: eBooks as proportion of SHU book collections
in selected disciplines**

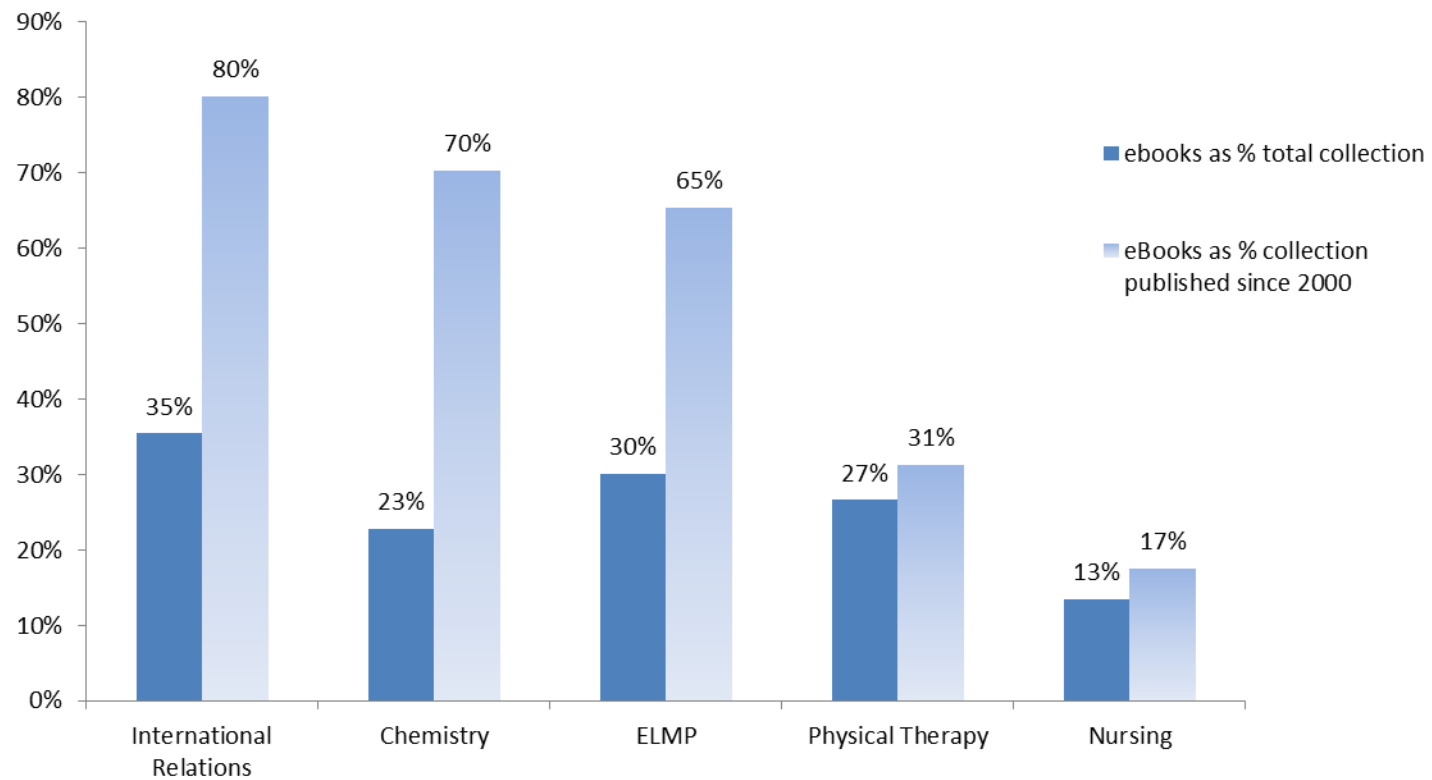


Table 1: eBooks available through ebrary Patron Drive Acquisition (PDA) by subject profile

| Description | Budget | Librarian | eBooks in Profile July 2013 | eBooks in Profile July 2014 |
|--|---------------|------------------|------------------------------------|------------------------------------|
| Asian studies | NEH | Bao | new | 828 |
| Gender, women and women's history | NEH | Bloom | 284 | 243 |
| American literature | NEH | Deyrup | 31 | 22 |
| Core and English course bookshelves | NEH | Deyrup/Wiles | 108 | 85 |
| Education | Regular | Favaro | new | 1 |
| Asian studies | NEH | Kalyan | 28 | 27 |
| English | NEH | Lee | 24 | 21 |
| Education | Regular | Loesch/Irwin | 93 | 89 |
| Psychology & Social Work Books | Regular | Loesch/Irwin | 12 | 28 |
| Accounting | Regular | Stern | 48 | 46 |
| Finance | Regular | Stern | 40 | 11 |
| Management | Regular | Stern | 53 | 47 |
| Marketing | Regular | Stern | 40 | 38 |
| Sport Management | Regular | Stern | 11 | 11 |
| Anthropology | NEH | Wiles | 392 | 482 |
| History & Philosophy of Science & Medicine | NEH | Wiles | 144 | 179 |
| Sociology | NEH | Wiles | new | 577 |
| Biological Sciences | Regular | Wiles | 175 | 183 |
| Chemistry & Biochemistry | Regular | Wiles | 164 | 285 |
| Environmental Studies | Regular | Wiles | 64 | 108 |
| Health & Medical Sciences | Regular | Wiles | 304 | 617 |
| Math | Regular | Wiles | 106 | 323 |
| Nursing | Regular | Wiles | 86 | 173 |
| Physics | Regular | Wiles | 72 | 171 |
| Total books in PDA | | | 2,279 | 4,595 |

| | | | | |
|---------------------|-------|-----|-------|-----|
| Total NEH books | 1,011 | 44% | 2,464 | 54% |
| total non-NEH books | 1,268 | 56% | 2,131 | 46% |

Table 2. Cumulative PDA selections for my subject profiles since October 2011.

| Subject profile | 31-Dec-11 | 30-Jun-12 | 31-Dec-12 | 30-Jun-13 | Profile total in July 2013 | 31-Dec-13 | 30-Jun-14 | Profile total in July 2014 |
|------------------------------------|------------------|------------------|------------------|------------------|---|------------------|------------------|---|
| Anth & other NEH | 234 | 722 | 771 | 834 | 536 | 655 | 670 | 661 |
| Sociology/Social Work ¹ | | | | | | 559 | 617 | 577 |
| Biology | 79 | 311 | 311 | 323 | 175 | 185 | 212 | 183 |
| Chemistry | 45 | 199 | 250 | 270 | 164 | 339 | 340 | 285 |
| Environmental studies | 40 | 113 | 113 | 113 | 64 | 66 | 109 | 108 |
| Math | 101 | 53 | 123 | 123 | 106 | 357 | 361 | 323 |
| Physics | 49 | 59 | 97 | 99 | 72 | 197 | 197 | 171 |
| Health sciences | 105 | 348 | 410 | 377 | 304 | 682 | 689 | 617 |
| Nursing | 54 | 133 | 147 | 124 | 86 | 159 | 182 | 173 |
| Totals | 707 | 1,938 | 2,222 | 2,263 | 1507^a | 3,199 | 3,377 | 3,098 |

^a about 30% of books that I had added to my profiles vanished in 2012-2013

Table 3

| Profile | In profile July 2013 | Triggered @ 30 June 2013 | % triggered | In Profile July 2014 | Triggered @ 30 June 2014 | total % triggered |
|-------------------------------|---------------------------------|---|--------------------|---------------------------------|-------------------------------------|------------------------------|
| Anthropology and other NEH | 536 | 43 | 8.0% | 661 | 59 | 8.9% |
| Sociology | | | | 577 | 11 | 1.9% |
| Asian Studies | 28 | 6 | 21.4% | 855 | 9 | 1.1% |
| Biology | 175 | 7 | 4.0% | 183 | 8 | 4.4% |
| Business | 192 | 5 | 2.6% | 153 | 8 | 5.2% |
| Chemistry | 164 | 10 | 6.1% | 285 | 14 | 4.9% |
| Education | 93 | 16 | 17.2% | 90 | 20 | 22.2% |
| Environmental Studies | 64 | 4 | 6.3% | 108 | 7 | 6.5% |
| Health Sciences | 304 | 50 | 16.4% | 617 | 72 | 11.7% |
| Literature | 163 | 15 | 9.2% | 128 | 17 | 13.3% |
| Math | 106 | 3 | 2.8% | 323 | 3 | 0.9% |
| Nursing | 86 | 24 | 27.9% | 173 | 32 | 18.5% |
| Physics | 72 | 2 | 2.8% | 171 | 3 | 1.8% |
| Psychology / social work | 12 | 0 | 0.0% | 28 | 0 | 0.0% |
| women's studies | 284 | 31 | 10.9% | 243 | 36 | 14.8% |
| total PDA | 2279 | 216 | 9.5% | 4595 | 299 | 6.5% |
| total expenditure | | \$16,808.94 | | | \$24,685.41 | |
| average book cost | | \$77.46 | | | \$82.56 | |

Table 4: ebrary PDA titles triggered in my subject profiles and overall, October 2011 - June 2014

| subject area | Triggered @ June 2012 | Triggered July-Dec 2012 | Triggered Jan-June 2013 | Triggered June-Dec 2013 | Triggered Jan-June 2014 | total |
|--------------------------------|--------------------------------------|--|--|--|--|--------------|
| Anth & other NEH | 23 | 13 | 7 | 7 | 8 | 58 |
| Biology | 3 | 1 | 3 | 1 | 0 | 8 |
| Chemistry | 5 | 3 | 2 | 1 | 3 | 14 |
| Environmental studies | 3 | 1 | 0 | 0 | 3 | 7 |
| Math | 0 | 1 | 1 | 0 | 0 | 2 |
| Physics | 1 | 0 | 1 | 0 | 1 | 3 |
| Health sciences | 15 | 15 | 20 | 11 | 11 | 72 |
| Nursing | 2 | 16 | 6 | 5 | 3 | 32 |
| Sociology | | | | 2 | 9 | 11 |
| Total | 52 | 50 | 40 | 27 | 38 | 207 |
| Total for all subject profiles | 96 | 75 | 44 | 40 | 44 | 299 |

Table 5: Use of eBooks in the ebrary PDA collection, October 2011 - June 2014

| Year | Month | Pages Viewed | Pages Copied | Pages Printed | Unique Documents | User Sessions | Chapter / Range Downloads |
|------|-------|--------------|--------------|---------------|------------------|---------------|---------------------------|
| 2011 | 10 | 44 | 0 | 0 | 18 | 18 | 0 |
| 2011 | 11 | 134 | 0 | 0 | 12 | 14 | 0 |
| 2011 | 12 | 19 | 0 | 0 | 3 | 3 | 0 |
| 2012 | 1 | 237 | 0 | 0 | 32 | 50 | 1 |
| 2012 | 2 | 220 | 0 | 0 | 23 | 29 | 2 |
| 2012 | 3 | 351 | 2 | 0 | 35 | 51 | 0 |
| 2012 | 4 | 872 | 5 | 54 | 40 | 73 | 8 |
| 2012 | 5 | 1,004 | 1 | 260 | 26 | 51 | 1 |
| 2012 | 6 | 1,238 | 0 | 0 | 99 | 300 | 227 |
| 2012 | 7 | 604 | 4 | 323 | 23 | 34 | 10 |
| 2012 | 8 | 601 | 25 | 5 | 26 | 46 | 2 |
| 2012 | 9 | 2,215 | 11 | 0 | 37 | 103 | 19 |
| 2012 | 10 | 1,470 | 23 | 0 | 31 | 107 | 4 |
| 2012 | 11 | 1,859 | 1 | 1 | 50 | 113 | 9 |
| 2012 | 12 | 1,441 | 14 | 0 | 30 | 81 | 6 |
| 2013 | 1 | 1,124 | 20 | 17 | 38 | 70 | 10 |
| 2013 | 2 | 969 | 1 | 0 | 34 | 67 | 51 |
| 2013 | 3 | 492 | 1 | 21 | 23 | 38 | 9 |
| 2013 | 4 | 970 | 7 | 3 | 26 | 71 | 11 |
| 2013 | 5 | 825 | 12 | 78 | 22 | 43 | 5 |
| 2013 | 6 | 228 | 0 | 2 | 12 | 15 | 1 |
| 2013 | 7 | 763 | 0 | 1 | 14 | 26 | 2 |
| 2013 | 8 | 210 | 0 | 0 | 12 | 26 | 9 |
| 2013 | 9 | 1,730 | 6 | 108 | 58 | 94 | 6 |
| 2013 | 10 | 340 | 1 | 0 | 46 | 66 | 3 |
| 2013 | 11 | 562 | 1 | 0 | 50 | 71 | 5 |
| 2013 | 12 | 170 | 2 | 0 | 31 | 37 | 0 |
| 2014 | 1 | 495 | 0 | 0 | 16 | 34 | 12 |
| 2014 | 2 | 556 | 1 | 0 | 17 | 28 | 0 |
| 2014 | 3 | 440 | 0 | 37 | 42 | 60 | 5 |

| | | | | | | | |
|--------------|---|---------------|------------|------------|------------|--------------|------------|
| 2014 | 4 | 611 | 0 | 39 | 35 | 54 | 0 |
| 2014 | 5 | 214 | 6 | 0 | 13 | 19 | 0 |
| 2014 | 6 | 26 | 0 | 0 | 8 | 8 | 0 |
| Total | | 23,034 | 144 | 949 | 982 | 1,900 | 418 |

| | |
|--|------|
| % available titles viewed (unique documents) | 20% |
| % viewed books triggered | 30% |
| average pages viewed | 23.5 |
| average pages printed | 1.0 |
| % viewed books with chapter/section downloads | 43% |

Table 6: Use of ebrary PDA books after triggering (n = 299) through June 2014.

| | Total | Average | Minimum | Maximum |
|-------------------|--------|---------|---------|---------|
| User sessions | 2,035 | 7 | 1 | 126 |
| Pages viewed | 36,959 | 124 | 0 | 3,901 |
| Pages printed | 1,513 | 5 | 0 | 376 |
| Chapter downloads | 589 | 2 | 0 | 46 |

Table 7: PDA usage compared with print book usage by subject area

| Subject area | PDA books triggered 2011- 13 | Print books circulation 2011-12*1.5 |
|--------------------|------------------------------------|---|
| Health med nursing | 19.0% | 12.8% |
| Social science | 15.2% | 10.8% |
| Humanities | 9.4% | 11.9% |
| Business | 2.6% | 6.0% |
| Science | 4.5% | 6.6% |
| Average | 9.5% | 11.0% |

* based on circulation for 2011-12 * 1.5 to represent 18 months.

Table 8

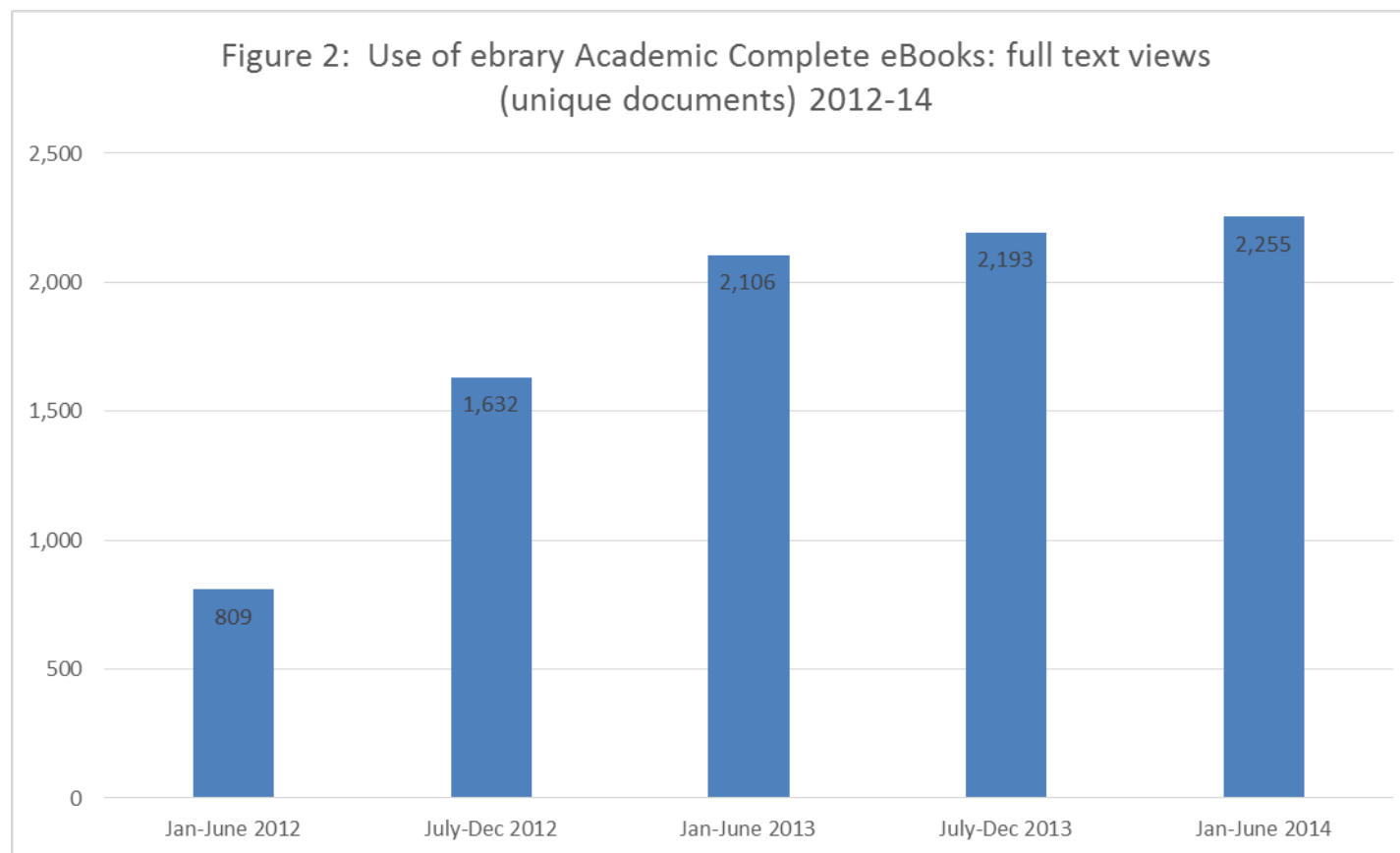


Table 9

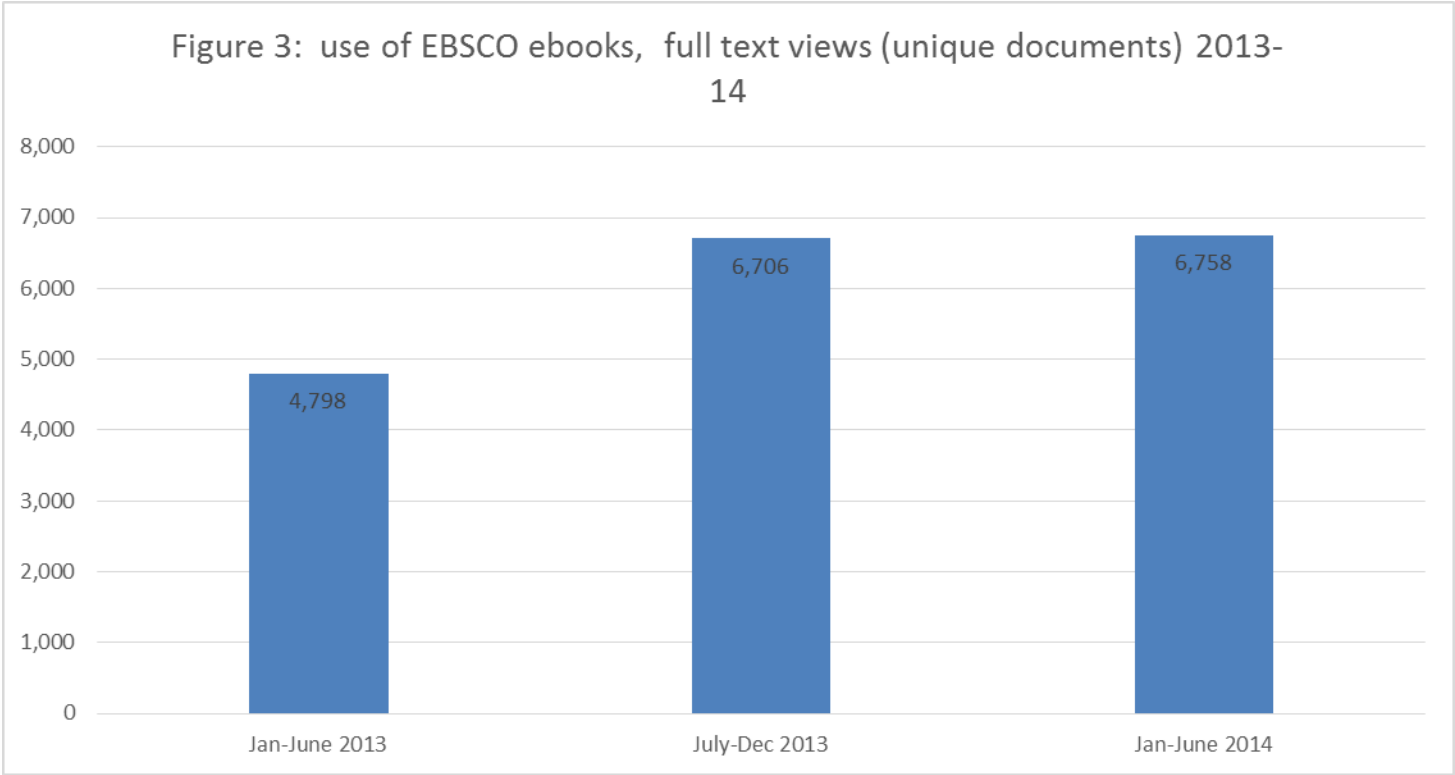


Table 10: Comparison of statistics for ebrary PDA, Academic Complete and EBSCO eBooks.

| Summary statistics | ebrary PDA October 2011- June 2014 | ebrary Academic Complete Jan 2012-June 2014 | EBSCO ebook collection October 2012- June 2014 |
|--|---|---|---|
| Dates available | | | |
| Months available | 33 | 30 | 21 |
| Titles in collection | 4,595 | 116,478 | 133,705 |
| # viewed | 982 | 8,995 | 18,439 |
| % viewed | 20.0% | 7.7% | 13.8% |
| Average titles viewed per month | 22 | 300 | 878 |
| average pages viewed | 24 | 27 | n/a |
| average pages printed | 1.0 | 1.1 | n/a |
| % viewed books with chapter downloads | 43% | 21% | n/a |
| % viewed books downloaded | n/a | 8.0% | 9.3% |
| % of viewed books with some downloading | 43% | 29% | 9.3% |
| Annual subscription | \$0 | \$11,324 | \$10,175 |
| Average cost per book viewed | \$25.14 | \$1.26 | \$0.55 |
| Average cost per book purchased/ downloaded | \$82.56 | \$15.95 | \$5.64 |

Table 11: Common reasons students gave for disliking eBooks, especially for extended reading

Dislike reading online / on screen

Difficulty focusing (concentrating, comprehending, retaining material)
Cannot make notes / highlight / use bookmarks or post-it notes ^a
Difficult to study from
Eye strain, blurry eyes, headache
Neck and/or back pain, cramps
Distractions (e.g. email alerts, pop ups, battery warning lights)
Difficult to flip back and forward in the text
Concern that book will 'disappear' or not be available (e.g. after power failure)

Difficulty with access and/or downloading

Don't know how to find eBooks (or for some, how to avoid them) in the catalog
Downloading is difficult / slow / 'clunky'
I don't know where the book went when I downloaded it
The book disappeared after I downloaded it
I couldn't remember my password / my password doesn't work

^a most were unaware that ebrary offers "virtual" highlighting, note-taking etc.