

Taking the Long View: A Case Study of E-Book Usage at a Comprehensive Research University

Edward F. Lener
Virginia Tech, lener@vt.edu

Mitch Moulton
Springer Nature, mitch.moulton@springernature.com

Author ORCID Identifier: <https://orcid.org/0000-0001-6352-5830>

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Taking the Long View: A Case Study of E-Book Usage at a Comprehensive Research University

Edward F. Lener, Virginia Tech

Mitch Moulton, Springer Nature

Abstract

The University Libraries at Virginia Tech made their first major acquisition of e-books in 2008 with a purchase of new e-book collections from Springer. While the business relationship has evolved over time, it has continued forward to the present day. Currently, the library's online holdings include most of the frontlist subject collections available from what is now Springer Nature, as well as the Springer book series and the Springer Book Archives. In all, the University Libraries make over 120,000 e-books available to patrons through the SpringerLink platform. The cumulative usage of this material represents over two million chapter downloads by the university community just since 2012.

The large number of titles available and the long-term nature of the acquisitions provide unique opportunities for in-depth analysis. The Springer Nature e-book collections also offer a variety of material types including monographs, textbooks, and reference works integrated onto the same platform. This session provides a case study of Springer Nature e-book usage at Virginia Tech and shows how working directly with a vendor partner can provide an enhanced and more multifaceted view of usage.

Background

Virginia Polytechnic Institute and State University (more commonly known as Virginia Tech) is a comprehensive research university with a current enrollment of just over 33,000 FTE. The student body is concentrated at the main campus in Blacksburg, Virginia, but the university also supports several distance education programs. The University Libraries implemented an e-preferred policy in 2012 and now acquires e-books from multiple providers.

One of the first major e-book purchases by the University Libraries, initiated in late 2008, was for the complete copyright year (CY) 2009 Springer English Language e-book collection. Comprised of several subject-based collections, this purchase included a total of 3,922 frontlist titles. Springer, now known as Springer Nature, is a well-established and respected publisher. The heavy STEM focus of the Springer content available at that time corresponded well with areas of programmatic emphasis at Virginia Tech. Experience had also shown that faculty and students in those disciplines were often more accepting of electronic-only formats. The SpringerLink platform provided a convenient way for users to access the

new e-book content in a manner very similar to that to which they were already accustomed for e-journals.

Discussion

Libraries face many challenges in trying to best allocate limited funds to acquire resources in a way that will meet the needs of their users. Metrics such as COUNTER statistics provide an invaluable source of information to aid in decision making. Working directly with a vendor can expand the opportunities for data gathering and analysis.

With e-books usage may extend over a considerable period of time. Having just one or two years' worth of data available may not always be enough when making a decision whether or not to renew or cancel a product.

Virginia Tech saw a quick uptake when the CY 2009 Springer e-book collection was first added. Even before all the titles were loaded into the library catalog, users were finding and accessing the content. This strong initial surge of interest led the University Libraries to renew the full collection for 2010 and beyond. Later, when Virginia's library consortium,

VIVA, purchased selected annual frontlist collections, the subject collections at Virginia Tech were modified accordingly to reflect the content acquired at the state level. The recent acquisition of Palgrave Macmillan brought more e-book titles from the humanities and social sciences into the available range of frontlist collections from Springer Nature. Virginia Tech opted to continue with its existing subject collections and to selectively add new ones in other disciplines. Consequently, while Virginia Tech still acquires the majority of frontlist content, it no longer purchases the complete English-language e-book collection as was previously the case.

Having large volumes of frontlist e-book content available over an extended period of time provides unique opportunities for analysis. For the purpose of this study we opted to review usage of the CY 2009 Springer e-book collection as that material represented the initial purchase and thus had the longest run of usage data available.

Analysis

In this study we looked at usage of the CY 2009 Springer complete e-book collection, comprised of 3,922 e-books. We analyzed the data in two primary ways. The first was to consider cumulative usage over time. The second was to consider annual usage since the material was first acquired. All download statistics shown here are COUNTER compliant.

Cumulative Data

The cumulative percentage of unique titles from the collection that were used over time was one key topic of interest. If this figure remains low, even several years out, then individual title selection might make more sense for a library. Conversely, a high figure would suggest that the savings in time and money by purchasing the collection in its entirety would outweigh the fact that some titles were never used. What we found in this case was that the percentage of titles used started relatively low, at 27% in the first year of access, but had almost doubled by the second year to 50%, and then continued to climb more slowly (Figure 1). By the eighth year it reached the 80% mark, an impressive figure! The initial usage after only a single year did not provide enough information to anticipate such a high rate of use over time.

We also looked at the number of chapter downloads for the same CY 2009 e-book collection. Since this plot shows a cumulative figure, the numbers naturally tend to go up over time. What is more interesting and relevant are the changes in slope from year to year. The inflection point showing a clear jump in downloads after the fourth year of access can likely be attributed to the addition of a whole-book download option to the SpringerLink platform in July 2013 (Figure 2). The continued high number of chapter downloads, with over 25,000 in 2016 alone, suggests there is still strong interest in this material even several years after its publication.

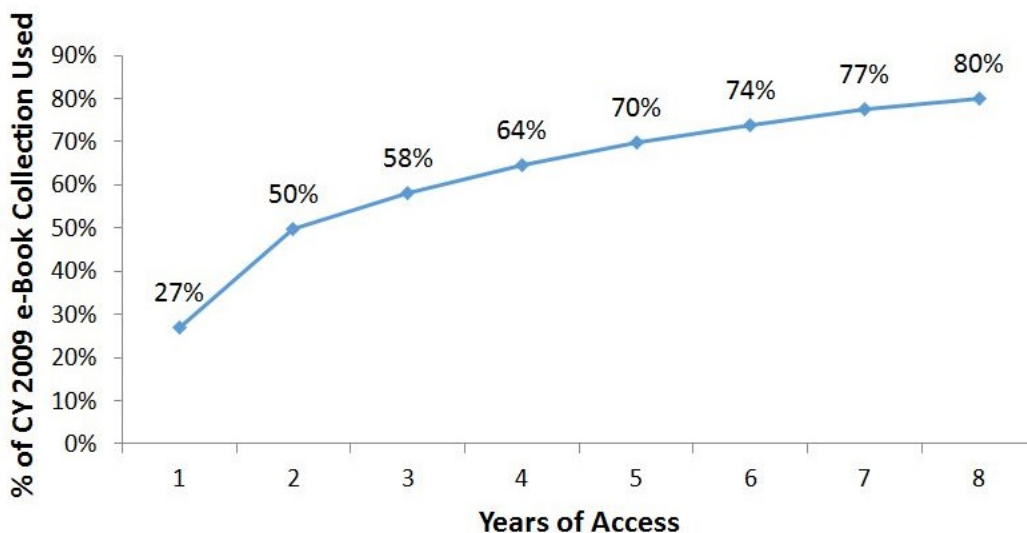


Figure 1. Percentage of Springer CY 2009 e-book collection Virginia Tech used.

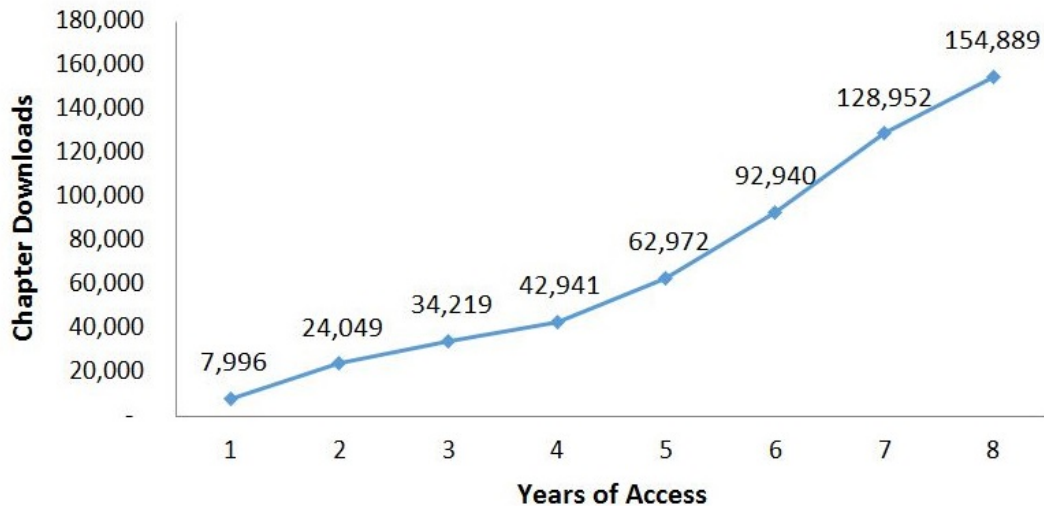


Figure 2. Virginia Tech’s chapter downloads from Springer CY 2009 e-book collection.

The cost per download is a frequently used and straightforward way to assess value. Since the CY 2009 e-book collection was a one-time purchase with no ongoing maintenance fees, this cost will tend to trend downward over time. What we found was the cost per chapter download started rather high at \$15.73 in the first year but had already dropped to just one-third of that amount after the second year (Figure 3). From there it continued to decrease over time. By the seventh year it had dropped below the \$1.00 per chapter mark. The continuing high number of chapter downloads suggests this investment will continue to pay dividends for many years as faculty and students access these e-books.

Annual Data

We also looked at the data by individual calendar year. This can make trends or variations more apparent.

For example, while Figure 2 is a plot of cumulative chapter downloads, Figure 4 depicts the same underlying data in a way that makes the annual changes stand out. Usage increased in 2010 followed by a slow decline. Then in 2013 it began rising again as whole-book downloads became available. Eventually we would expect this number to decrease again as the content ages, a trend that may already be evident with the 2016 data.

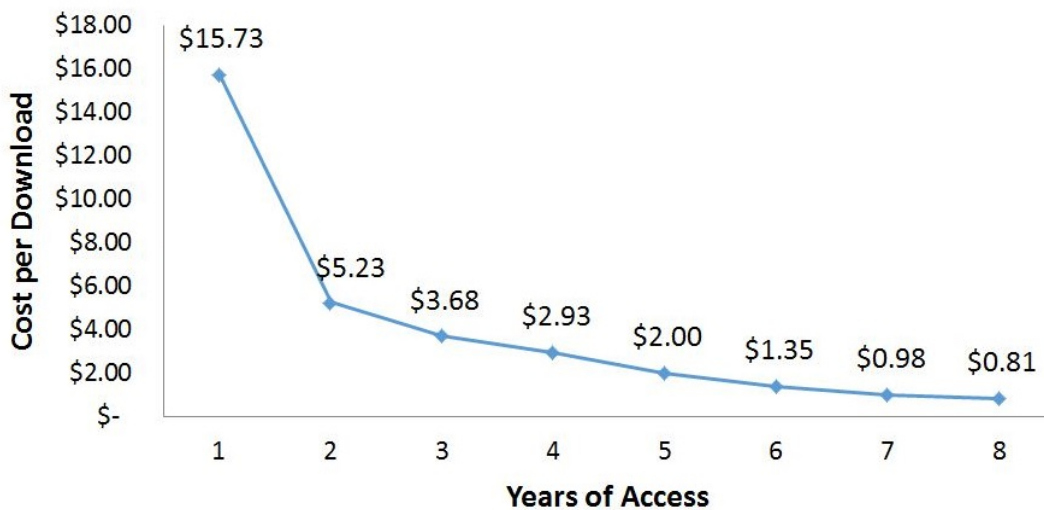


Figure 3. Virginia Tech’s cost per chapter download for Springer CY 2009 e-book collection.

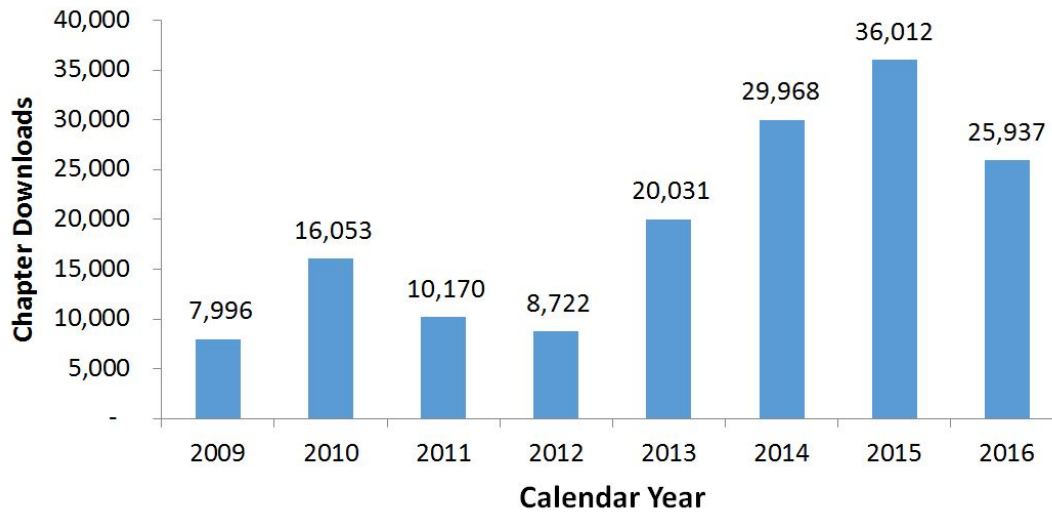


Figure 4. Virginia Tech's chapter downloads from Springer CY 2009 e-books by calendar year.

Finally, we examined the number of unique titles used each year. The data revealed over 1,000 unique titles were accessed in each of the last eight calendar years out of a pool of 3,922. A more detailed analysis of format types (not shown here) revealed that conference proceedings consistently represented the largest number of unique e-book uses each year. We also examined when an e-book was first used and how many of those e-books have repeat use in subsequent years (Figure 5). The results show there is a strong likelihood that a title used in the first two years of access will be used again later. Since Virginia Tech purchased the CY 2009 collection outright, the university continues to have access to all of the titles.

However, this observed pattern of ongoing usage is an important consideration in those cases where a library may have access to a pool of titles for only a limited period of time.

Conclusions

Virginia Tech found the Springer e-book collections to be a good value over time, with costs eventually declining below \$1.00 per chapter downloaded after seven years of access.

The percentage of unique e-book titles used, 80% by the eighth year, was higher than anticipated and

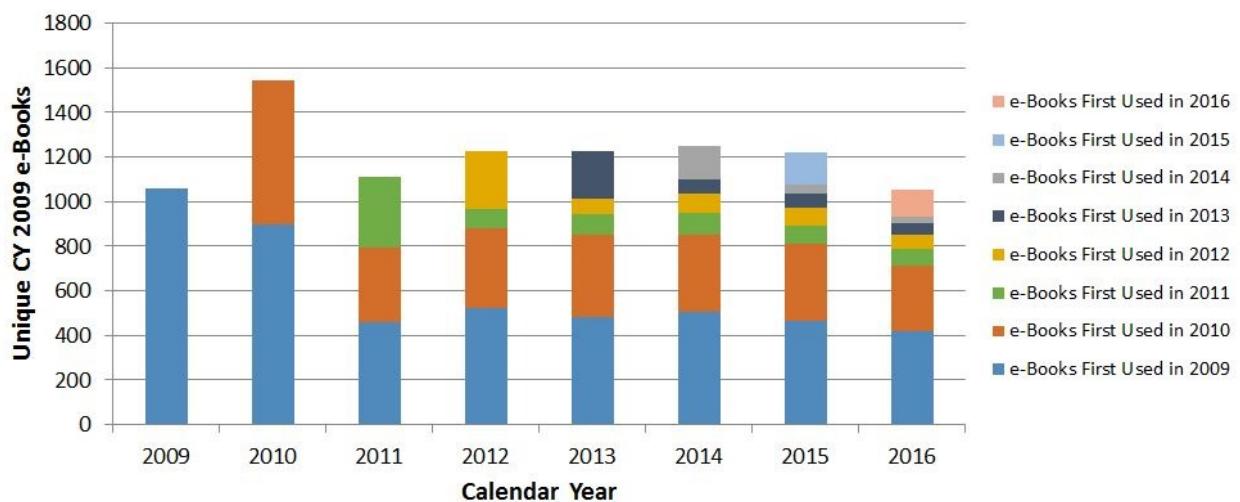


Figure 5. First use by Virginia Tech of unique CY 2009 Springer e-books each calendar year.

shows a good fit of the material to the information needs of the Virginia Tech academic community.

Multiyear data help better inform decision making. Data from the first year of access do not always provide a clear indication of what might happen over the long term.

Working directly with a vendor can expand the range of available metrics libraries use when analyzing their collections. For example, data on format and subject collections expanded on that available directly via the SpringerLink Admin Dashboard Portal.