As librarians navigate new realities of both information and financial landscapes, quantitative methods play a key role in analyzing the value of electronic content, particularly e-book collections, in order to demonstrate value and impact. To develop an effective framework for ongoing collection evaluation, it is important to establish a foundational knowledge of e-book publishing trends and local information needs that inform collection development decisions.

There is already a wealth of knowledge resources available to information professionals that discuss the above-mentioned topics in detail. Instead of focusing on them in depth, this chapter provides a brief summary of information that informed projects later discussed in this issue of *Library Technology Reports*. At the end of this chapter, I have also compiled a short list of resources that I used to fill personal knowledge gaps. This list is by no means exhaustive and does somewhat lean toward academic library environments, but I hope it may provide a starting point for others who are beginning their own investigations into the world of e-book collection development.

**Brief Overview of the E-book Publishing Landscape**

E-books are regarded as a disruptive technology and have required publishers, aggregators, and information professionals to completely rethink purchasing models, business relationships, and acquisition workflows. On all sides of the equation, content creators and providers search for models that offer quick, seamless, and affordable access to e-book content. This is a time of experimentation, and factors such as publishing costs, intellectual property rights, and rapid advancements in technology mean that business models and workflows are often in flux.

One common but largely incorrect assumption is that electronic content costs less to produce than print materials. However, the “basic tasks involved in creating e-books are very similar to those of creating a print book: acquisition, financing, production, marketing, sales, and delivery of books.” In regard to total publication costs, manufacturing and distribution expenses account for only 12 percent of a print book’s retail price. While this percentage can be eliminated from an e-book’s price tag, the electronic format comes with three additional costs not associated with print counterparts: digitized preparation in multiple formats, quality assurance, and digital distribution through a range of retailers that have unique upload and management protocols.

The e-book consumer market is based on a retail business model; customers pay for downloads of individual titles and content is stored on personal devices. This arrangement is similar to the way print titles are sold to consumers, including libraries.

The acquisition of e-books by libraries is based on online supply models, meaning that content is hosted on a third-party website and libraries pay for access. This model creates an ongoing business relationship between libraries, publishers, and aggregators. There is typically an exchange of annual fees (either maintenance or subscription) to maintain host platforms and ensure that content access is not interrupted. The terms of the business relationship are outlined by license agreements, which also determine how users discover, access, and use e-books.

In many cases, the shift in business practices creates challenges for both publishers and libraries.
order to produce content and remain in business, publishers have to develop business models that are economically viable. Many fear that providing perpetual access to e-books through libraries can ultimately impact sales of digital titles, place increased pressures on bookstores, decrease royalties paid to authors, or provide opportunities for piracy. Libraries, on the other hand, state that e-book collections introduce texts to wider audiences and promote authors to patrons. Also, a central issue is the question of whether libraries own e-book titles or merely lease access as would a subscription to an external database. Many questions regarding e-book ownership are wrapped into discussions of long-term access, preservation, and whether it is possible to transfer holdings to alternative platforms in the event that a publisher ceases to exist.

Currently, there exists a wide range of e-book business models that try to balance the diverse needs of content producers and libraries. Options include one book/one user, multiuser, unlimited simultaneous use, subscription, patron-driven acquisition, evidence-based acquisition, and short-term loan. Depending on the model, libraries can purchase titles in perpetuity or lease content for a specified period of time. Many models also incorporate digital rights management (DRM) that limit patrons’ abilities to print or download sections of individual titles in order to prevent a negative impact on book sales or comply with publishing agreements. To learn more about various e-book business models, please see the list of suggested readings at the end of this chapter.

It is also important to note that in a highly experimental environment, it can take several fiscal years to determine if a business model is sustainable, which means it must be competitive and economically viable. One recent example is the widely popular patron-driven acquisition (PDA) model, which allows users to discover books that are not owned by the library and initiate their purchase for the collection. While the model provides exposure to a wide range of content, it is also highly unstable and can have dramatic impacts on bottom lines in the publishing industry as well as annual library budgets. Another concern is that PDA focuses all collection efforts on the short-term needs of a user community and does not consider “the long tail of need,” which refers to robust collections that serve future users. Finally, there are concerns regarding the future of specialized scholarly monographs that cover narrow subject areas. Will small presses have the resources to publish these materials if they are not purchased by libraries at the time of publication? These are all challenges that impact the future of scholarly communication and the depth and breadth of subject-specific collections.

In this complex landscape, acquiring e-books for library collections begins with a consideration of the source of content, whether that means striking a deal with the original content creator (i.e., the publisher) or with an aggregator who pulls work from multiple publishers into one platform. With many options available, librarians can locate business models that suit their needs if they familiarize themselves with the market and also with the information needs that exist in their local user community.

**Brief Overview of Information Needs and Usage Trends**

In the commercial e-book market, convenience is the name of the game. Customers access content anytime, anywhere, and from any device. Information consumption is highly customizable to individual needs or tasks at hand. The characteristics of commercial digital content inform the expectations and behaviors of information consumers, who also rely on libraries for access to materials.

A wide variety of studies and literature reviews by information professionals conclude that convenience is a critical factor in information-seeking choices, particularly in teaching, learning, and research environments. They discovered that the main benefits associated with e-books are twenty-four-hour access to materials, remote access, and the ability of multiple patrons to access one resource at the same time. Restrictions imposed by DRM, poor platform design, and limited file compatibility with popular devices served as deterrents.

In teaching, learning, and research environments, e-book use is most often task-oriented. Activities are linked to quick reference, in-text search functionalities, and citation checks. In other cases, e-books serve as a convenient means of previewing a text; students and faculty members peruse the e-version to gain a sense of the information, biases, or arguments presented in a scholarly monograph. If content is deemed useful, a print version is often requested for extended reading.

In many cases, expressed preferences for print or electronic formats are linked to predicted levels of engagement with a text. For instance, e-books are often favored for discontinuous reading activities, which involve skimming, fact or citation checks, and searches. This observation is described as “use rather than read” behavior. Essentially, e-books are a tool that promotes power browsing. They allow users to preview texts or try out new authors in a convenient and low-risk fashion. Print formats, however, are typically favored for continuous reading activities. These involve a deep level of engagement with a text over an extended period of time. Associated activities can include learning new information, conducting research, or engaging with a plot.
Some researchers speculate that the relationship between format preference and reading behavior may account for the popularity of the PDF file format, particularly in academic environments. The format combines desired functionalities of electronic (search capability, convenience) and print (reading) into one convenient reading space. The format provides electronic renditions alongside the ability to produce high-quality prints, giving users freedom to choose the format most appropriate to their purposes. Researchers suggest that when studying information-seeking behaviors, it is important to consider how users prefer to search for content and how they prefer to read content.

Local Information Needs at CUL

Several months into the E-book Program Development Study, I realized that I was operating under the assumption that users prefer electronic content for research, teaching, and learning activities. Throughout society, we rely so heavily on the Internet, mobile technologies, and social media to gather and disseminate information that I assumed users would prefer e-books for all scholarly activities. However, as I started to collect usage statistics, examine discovery and access trends, and speak with faculty, students, and library staff, I realized that my initial impressions of content use were far too simplistic and did not tell the full story. As I dug deeper into data sets, I started to ask more and more questions about when, how, and why users gravitate towards certain formats (e.g., print, electronic, archival materials) to support scholarly activities and build knowledge around specific subject areas.

At first, I worried that the discovery of questions rather than solutions would result in a lengthy list of proposals for future studies. But the opposite turned out to be true. The inquiry process provided a focus and pulled everything I had observed into one overarching question: what is the intended use of e-book content? Users interact with information for a variety of reasons including course use, research pursuits, and general interest. These activities serve different functions within a community, rely on different forms or reading (e.g., continuous vs. discontinuous), and support different information needs.

When I consider intent of use from a collection development perspective, my mind automatically begins to separate activities into the categories of “current use” and “future use.” This seems appropriate as there are few business models or collection development strategies that address both requirements at once. I think this separation points to a general shift in the way academic libraries in the twenty-first century must approach collection development activities; successful initiatives rely on a balance between “just in case” and “just in time” strategies. This balance allows information professionals to determine when it makes economic sense to invest resources in high-use materials for current users and when it is appropriate to purchase materials that may have low use but add to the long-term value and legacy of the collection. Again, having a strong understanding of information needs and how patrons intend to use e-book materials for current users and when it is appropriate to purchase materials that may have low use but add to the long-term value and legacy of the collection.

My work on the E-book Program Development Study has convinced me that going forward, collection development decisions regarding business models, license negotiation, and title acquisition hinge on the libraries’ understanding of the intent of e-book use. Once we have successfully answered this question, we can enter into meaningful conversations with stakeholders, advocate for the needs of users during conversations with publishers and aggregators, and build collections that satisfy immediate and long-term information needs.

It is important to note that as the information landscape continues to evolve at a rapid pace, user intent will evolve as well. Below are several methods that were used in the E-book Program Development Study to document intent of use. They served as a starting point for the evaluation of e-book holdings, collection development policies, and general communication with the patron community. Please see chapter 3 for an in-depth discussion of indicators that inform collection development decisions and activities.

- Solicit direct feedback from patrons to monitor evolving information needs and the ways in which collection materials are used to support teaching, learning, and research activities. Based on feedback, develop a baseline to monitor usage trends that impact how collections are built (e.g., acquisition of print or electronic, focus on subscriptions vs. package deals that offer perpetual access) to fulfill “just in case” and “just in time” priorities.
- Develop strong channels of communication with subject specialists and liaison librarians to monitor changing information needs (e.g., shift in patron focus from one subject area to another) and document how collection materials are integrated into course reading lists, public programs and services, and so on.
- Consider whether e-book materials are most likely used to support continuous or discontinuous reading activities.
- Monitor usage trends across e-book subscriptions and packages. Evaluate new subscriptions over a period of three years to examine usage trends, return on investment, overlap, and quality of content.
Based on observations regarding intent of use within the patron community at CUL, I also compiled a list of criteria to inform a general evaluation framework that would standardize e-book evaluation methods across campus and establish a baseline of quantitative data:

- intent of use
- intended audience
- access at least equivalent to print
- sufficient access (e.g., multiple user access when a title is placed in course reserves)
- cost history
- range of subject coverage
- usage and availability of usage statistics
- return on investment
- content impact within the user community

**Suggested Resources**

Listed below are several resources I used to fill my own knowledge gaps regarding e-book business models, collection development practices, and resource management practices. This list is by no means exhaustive, and there is a wealth of information available to the professional community. However, I hope it can provide a solid starting point to information professionals who are developing e-book evaluation frameworks for the first time or would like to expand their knowledge on practices mentioned above.


**Notes**

2. Ibid.
3. Ibid.
6. Ibid.
9. Ibid.
12. Ibid.
15. Ibid.