Exploring academic e-book use: part II through focus groups and interviews

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Abstract

Purpose – In two previous papers, the authors discussed a text analysis method utilized to explore e-book usage across disciplines at Columbia University. To verify the method, the authors conducted focus group and interviews sessions with faculty members and graduate students to understand when and why e-books are used in conjunction with scholarly activities. The paper aims to discuss these issues.

Design/methodology/approach – Participants answered eight pre-determined questions during one-on-one interviews and dual moderator focus group sessions. They were also invited to complete a questionnaire regarding e-book discovery, access, and use. All sessions were transcribed and the data were analyzed using grounded theory approach to examine emerging themes.

Findings – The findings suggest that faculty and graduate students use e-books for discontinuous reading and quick reference purposes. They value the ability to customize learning environments to suit immediate circumstances and needs. Frustration occurs when availability and accessibility are hindered by limitations imposed by platforms or licenses. Participants believe the library can advocate for users and work with vendors to develop business models that promote greater convenience and flexibility online.

Originality/value – The study complements and extends existing findings reported in earlier research utilizing a text analysis method. The results indicate that text analysis is a reliable assessment method in the examination of usage trends across e-book collections. Also, the study brings a human sentiment to the discussion of e-book discovery, access, and use. It provides the user community with a voice and left the authors with a deeper understanding of existing information needs on campus.

Keywords Academic libraries, Interviews, Assessment, Qualitative research, Focus groups, Electronic book

Paper type Research paper

Introduction

Since 2010, there has been marked growth in e-book holdings at Columbia University Libraries (CUL). At the present time, the libraries provide access to over two million e-books and expenditures comprise 25 percent of the book budget. In response to this growth, CUL is developing a unique strategy and vision for e-book programs and initiatives across campus. This includes assessing how users discover, access, and use e-books to support scholarly activities. The insight and feedback gained from observing and discussing information seeking behaviors will inform the future of e-book collection development activities and programs at CUL.

In the paper Exploring Academic E-book Use: Part I through Text Analysis, Bakkalbasi and Goertzen (2015) discussed a text analysis method utilized to explore e-book usage across disciplines. The method relied on data from two sources: users’ e-book search queries that were entered into CUL’s discovery tool called CLIO and
e-book title words provided by COUNTER usage reports. The findings provided insight into the nature of e-book use and suggested that the format is used primarily for reference and instructional purposes. The authors determined that the strength of the text analysis methodology was the ability to examine information needs from real users based on real queries entered into CLIO over the course of one calendar year. However, they also determined that one knowledge gap remained: the ability to examine the intent behind observed information seeking behaviors.

In order to provide an additional layer of meaning to the results of the text analysis study, we set out to understand for what purpose and why readers use e-books in conjunction with research, teaching, and learning activities. In order to answer these questions, a series of focus group and interview sessions with faculty and graduate students based at Columbia University were conducted during the summer semester of 2014. The participant group represented three major divisions within the library system (i.e. humanities, social sciences, and sciences).

The focus group and interview sessions provided two distinct advantages that complement our previous work. First, the research described in this paper adds a human element to the investigation surrounding e-book discovery and access—it provided the user community with a voice and allowed us to uncover reactions or attitudes that are not apparent when relying solely on quantitative data. Second, the body of qualitative data collected through the focus group and interview sessions facilitated validation of previous results through cross-examination and verification using another method (Bakkalbasi and Goertzen, 2015). Results indicate that the text analysis methodology is a reliable assessment method in the examination of usage trends across the CUL’s e-book collections.

**Literature review**

As the information environment evolves, it is more important than ever for librarians to connect with user communities and understand existing information needs. Opportunities to observe and discuss information seeking behaviors with users themselves are invaluable. Knowledge regarding their preferred means to discover, access, and use e-books can lead to the development of services that provide new opportunities for the integration of electronic content into research, teaching, and learning environments at academic institutions.

Over the past several years, a number of studies were conducted to determine the advantages and challenges users associate with e-book collections. Armstrong and Lonsdale (2009) and Beisler and Kurt (2012) suggest that the main benefits linked to e-book use include 24 hour availability of materials, remote access, and multiple user access options. In most cases, the challenges relate to issues that restrict access and functionality options including digital rights management (DRM), platform design, and the incompatibility of file formats with various e-readers and technologies.

In a literature review that examined findings from e-book surveys, Ashcroft (2011) found that users’ expectations regarding e-book use are also linked to accessibility and functionality. The seamless nature of information access available through the commercial market has not yet permeated the academic market. Users want to access e-books using a variety of technologies, including mobile devices, at their convenience (2011). However, licensing issues or DRM create barriers. For instance, some business models limit the number of users that can access individual titles simultaneously. Faculty and students are often unaware of limitations imposed by licenses because they are accustomed to the unrestricted and instant nature of information access.
through the internet (2011). This expectation can result in frustration and confusion when users are asked to “wait in line” for e-book content.

To better understand how faculty use e-books in their research and teaching, Arizona State University Libraries held a focus group in the spring of 2007. The participants were asked to comment on their use of e-books as teaching and research tools, disciplinary differences in perceptions of e-books, and motivators for future use (Carlock and Perry, 2008). The findings indicate that faculty had unsatisfactory experiences due to unreliability of access, lack of manipulability, and differences in functionality between various interfaces (2008). The authors suggest that academic libraries can provide training to faculty regarding different e-book platforms available through the library, provide better course support, and advocate for faculties’ research and teaching needs during discussions with vendors (2008).

In order to examine e-book use and its value to academic users, the University of Illinois at Urbana-Champaign Library was invited by Elsevier Publishing to participate in a global study of e-book use and perceived value (Chrzastowski, 2011). The study included user interviews, surveys, and logbook questionnaires to capture users’ experiences searching, retrieving, and using e-books on the Elsevier platform. The results indicated that access, the ability to search and navigate through texts, and the ability to download content to laptops ranked as the top advantages associated with e-book use (2011). Participants’ online behavior also suggested that users value the ability to briefly look at information, read from the screen, and download PDFs (2011).

Chrzastowski’s findings are mirrored in a number of papers that examined how e-books support academic work. In a literature review that examined e-book acquisition and maintenance in academic libraries, Blummer and Kenton (2012) found that users value the ability to navigate between chapters, print sections of chapters, and search content in an efficient manner. For instance, undergraduate and graduate students value the use of indexes, table of contents, and full text search tools when using e-books for research and learning purposes (2012). This behavior could relate to the fact that members of the academic community do not immerse themselves in e-books for extended periods of time to examine entire arguments.

At Miami University, librarians conducted oral interviews with a group of faculty, graduate students, and undergraduates to examine user attitudes and beliefs about e-books. The results indicate that format preference is linked to intent of use. For instance, in cases where a text is intended for leisure reading, participants prefer print books. However, when users require only a portion of a text, they believe that e-books provide advantages in the form of portability and search functionalities (Shrimplin et al., 2011).

Findings published in the Ithaka S+R US Faculty Survey 2012 stated that the majority of faculty respondents indicated that “electronic versions of scholarly monographs play a very important role in research and teaching” (Schonfeld and Housewright, 2013, p. 31). When asked to consider a variety of activities and indicate how much easier or harder it is to perform each activity in print or digital format, respondents indicated that exploring references and searching for particular topics is much/somewhat easier in digital form than in print. They said that reading in depth and reading cover to cover is much/somewhat easier in print form than digital (2013).

Staiger (2012) discovered that academics “use rather than read” e-books. In many cases, users view e-books as a type of online environment that allows them to search and extract information (2012). Staiger said that academic users have years of experience working with e-journals. In many cases, users expect the same kind of
flexibility that they enjoy with articles: the ability to download PDFs, view content on whatever device they choose, and print content without restriction (2012). When they encounter obstacles in these areas, users often become frustrated. The vast majority of challenges related to functionality are not inherent to e-books themselves. Rather, they are the result of restrictions (e.g. DRM) imposed by content owners (2012). This situation places libraries between a rock and a hard place as they address concerns from users without having a direct ability to remedy the situation. However, knowledge of the current e-book landscape and users’ information needs can lead to opportunities for advocacy, and ideally, the development of solutions that are beneficial to both the library and publishing community.

At the University of Oklahoma, librarians invited faculty members working in the pure and applied sciences to complete an online survey following individual interviews featuring e-book demonstrations. The conversations focussed on current and potential e-book use for research and teaching purposes (Bierman et al., 2010). The findings suggest that just as e-journals found acceptance in the academic community, e-books will become more commonplace in the near future due to factors like convenience and ease of navigation. Essentially, users want the ease of use they encounter on the Web to be a regular part of their e-book experiences (2010). Finally, librarians should advocate for the needs of user communities by sharing feedback and concerns with publishers. The development of e-book platforms benefit from observations librarians can provide about the online behaviors of users (2010).

Research design
Two central goals guided the research design of this investigation. The first was to collect experiential qualitative data sets that provided insight into for what purpose and why the user community utilizes e-books for scholarly activities, namely research, teaching, and learning. This investigation included uncovering general themes regarding e-book use on campus and across disciplines. The second goal was to empower the user community and give them a voice as decisions are made regarding the future of e-book collection development at CUL.

The time frame we were given to complete this portion of our study coincided with the 2014 summer semester at Columbia University. We realized that this could present challenges in terms of participant recruitment – this is a time of year when faculty and students are frequently away from campus. It became apparent that it would be particularly difficult to coordinate faculty focus group sessions around summer sabbaticals and conference schedules. After careful consideration, we determined that scheduling one-on-one interviews with faculty members would be the most appropriate method to discuss information needs and general e-book usage. However, we also decided that our sample would contain enough faculty participants to equal in size to at least one full focus group.

After obtaining IRB approval, we began work on the recruitment process. We worked with library administrators to generate a list of faculty members who represented three major disciplines across campus (i.e. humanities, social science, and science). Then, we distributed personalized e-mail invitations until we had reached our target sample size. In total, we met with nine faculty members at their offices and conducted 45 minute interview sessions. Each session was recorded for transcription purposes.

In terms of the student focus groups sessions, we decided to restrict participation to graduate students for two reasons: Columbia University is a research institution and students studying in graduate and professional programs account for approximately
70 percent of the student population, and also graduate students are engaged in research, teaching, and learning activities across campus. To recruit students, we sent e-mail invitations through listservs and connected with student clubs across campus. Then, potential participants were asked to complete a brief screening survey to determine their eligibility for the study (e.g. must be at least 18 years of age, must be enrolled as a full-time or part-time student, etc.). Participants were also offered small incentive prizes. Experience using e-books was not part of the selection criteria – we felt it was equally important to understand why students choose to use or not use e-books to support academic activities. In total, we recruited 11 graduate students for two, 90 minute dual moderator focus group sessions. Each session was conducted in a conference room located in the Butler Library and again, each was recorded for transcription purposes.

We created a list of eight pre-determined questions for use in both the focus group and interview sessions (see the Appendix). They examined popular discovery tools, the frequency and purpose of e-book use, desired functionalities, and experiences using e-books for academic purposes. Following each session, participants were also provided with an opportunity to complete a brief five question questionnaire regarding popular technologies, platforms, and discovery tools used to access e-books.

We discovered that a point of saturation was hit fairly quickly – since we were most interested in discovering general themes regarding e-book discover, access, and use across campus, we noticed that the same benefits, challenges, and limitations were discussed in each session. After speaking with the 20 participants (nine faculty members and 11 students), we felt that we had collected sufficient data to make broad statements and verify findings from the text analysis study (Bakkalbasi and Goertzen, 2015).

After each focus group and interview session was transcribed, the data were analyzed using grounded theory approach, in which responses are categorized and coded to examine emerging themes. Each response was treated as unit of data and was examined in the context of the following categories: general e-book use, academic use, discovery, functionality, and technology. Word counts were also conducted to determine how many times specific words or phrases (e.g. names of file formats, e-book platforms, etc.) were mentioned. Upon the completion to data analysis, all recordings and transcriptions were stored on a secure server shared by the two authors to protect the anonymity of study participants.

Results
Reading technique and e-book use
One of the central themes that we discovered in both the focus group and interview sessions was that the decision to use e-books for academic purposes was largely dictated by the reading technique most suited to the reading task at hand. These results support findings reported by Shrimplin et al. (2011), Blummer and Kenton (2012), and Staiger (2012). At CUL, participants said that they prefer print formats for continuous reading (e.g. prolonged reading without interruption for research or learning purposes, making annotations, etc.) and electronic formats for discontinuous reading and quick reference (e.g. confirming citations, referring to quotes, etc.). Faculty and students indicated that they use e-books at least once a week for latter tasks. When asked to provide examples, a faculty member working in the social sciences said that e-books are used “most often for checking quotes, looking at a chapter, or determining if it’s a reading I want to find out more about so that I can assign it. It’s a preliminary approach, but rarely the final way I read.” A graduate student working in the
humanities also stated that “if a source needs to be studied in depth, I need the print. If I’m just skimming something or need to get the general gist of a chapter, I’m happy to use an e-book.”

Above findings corroborate the broad conclusions reported in the first half of our study involving text analysis of search terms and retrieved titles (Bakkalbasi and Goertzen, 2015). The results provided insight into the nature of e-books used across disciplines including broad topics (e.g. history), academic level of use (e.g. introductory), and genre/type (e.g. reference). At that time, we also discovered that a substantial number of search queries containing six or more words were for known items; they contained highly specific information such as edition number, volume number, and ISBN.

When we completed the first half of the study (Bakkalbasi and Goertzen, 2015), we found it challenging to glean reader intent as the text data remained wildly open to interpretation. However, the above findings are in agreement with results of text analysis (2015). The themes that emerged during the focus group and interview sessions indicate that users do indeed dip in and out of known e-book titles for the purpose of quick reference, introduction to texts or arguments presented in texts, and so on.

The definition of convenience
Through discussions with faculty and students, we discovered that the decision to use e-books for discontinuous reading and quick reference is related to a large advantage provided by the format: convenience. These findings support user behaviors noted by Bierman et al. (2010) and Ashcroft (2011). Based on our discussions with faculty and students at CUL, we determined that convenience is composed of three criteria: content availability (e.g. not having to “wait in line” for an e-book), accessibility (e.g. remote access, availability of multiple file formats, etc.), and usability (e.g. search, print, and download capabilities).

When we pursued the topic of convenience further, we discovered that faculty and students do not have a preference for specific technologies or platforms through which to access e-books. Rather, they desire a variety of discovery, access, and functionality options that can be tailored to particular circumstances and working environments. Essentially, they desire the ability to customize e-book use to suit a specific set of needs in a given moment. As an example, a faculty member working in the sciences said, “sometimes I want to project content in a classroom […] but then at other times, what I really want is portability […] to have snitches of time to read, and if I'm doing that, then it's nice to have a portable device I can take with me.” A graduate student who deals with a lengthy commute commented on the ability to customize e-book use around his travel schedule: “it’s hard to bring physical books with me. If [the library] has a link to an e-book, I generally prefer to use that. The big difference is how the publisher presents the e-book […] the clunky platforms don’t let you download chapters. The good platforms let you download a chapter and then you can bring it to class, print it, or search it.”

Perpetual access to content and annotations
When we analyzed the qualitative data collected from interview sessions, we discovered a theme that was entirely unique to faculty members. This is the idea of perpetual access to content and information, not only in regards to e-books themselves, but also in terms of annotations and notes. The faculty members we spoke with do not feel confident that electronic annotations will be preserved for
years to come. They said that in many cases, they refer to annotations over the course of their entire career. A professor working in the humanities said, “if I lose annotations down the road, I could potentially lose years of my work. It could vanish and that’s it. That would be devastating.” A faculty member in the social sciences said, “I’ll flirt with the e-book when I need something in the moment, but I’m not going to make a commitment to e-books that may disappear. Imagine working on a book for 12 years, and then CUL changes its subscription service or the publisher goes out of business […] you lose your notes and it’s horrible.” If an e-book is pulled from a platform or a publisher ceases to exist, faculty are at risk of losing work that is irreplaceable. In many cases, we found that faculty prefer to annotate print formats because they know the text, along with their work, will remain safe on their shelves for years to come.

Creating desired e-book environments for academic work
As we conducted the focus group sessions, we also discovered one theme that was unique to graduate students: they are willing and capable of creating e-book experiences that suit their needs, even if this means working around the library. Students indicated that through word of mouth, they often find online learning environments that are suited to their research and learning needs. These can include subscription, foreign, and in some cases, illegal databases of electronic content. For example, a graduate student working in the humanities said:

I’ve downloaded from publishers or Internet sources, like large Russian websites. It’s not just me, a lot of my colleagues and grad students use these sites […] for reasons mentioned, like the fact that a lot of “real” e-books are unusable. If someone really wants to use it, they will go through the trouble of unlocking a PDF or removing copyright restrictions, and then they will share it. A lot of people download e-books and share e-books on these e-book databases. A lot of people in the academic community do this.

A second graduate student working in the humanities mentioned that many students pay subscription fees to e-book databases that provide desired functionality and access. When describing one such database, he said:

[The database] is 90 dollars a year, but it gives you access to the full text and they are all digitized. You can search for a topic and it will pull up a list […] of academic titles. You can do full text searches, make annotations, and then you can get different citation [styles] so you can drop it into your paper with a quote. You can save the e-books that you’re using to your account. I like it because it makes e-books useable. I would like it if you could print the e-books as well, but still, it’s pretty good.

The results suggest that student place high value on user experience, access, and ultimately convenience.

The findings suggest that faculty and graduate students use e-books on a regular basis for discontinuous reading and quick reference, and value convenience and the ability to customize research and learning environments to suit immediate needs. They said that it is frustrating when availability, accessibility, and usability are hindered by the limited functionality of academic interfaces and platforms. Participants readily acknowledged that these challenges are not linked directly to the library. However, they said the library can advocate for the user community and work with publishers to develop flexible business models that promote greater convenience and flexibility online.
The combined findings of both the text analysis (Bakkalbasi and Goertzen, 2015) and interview and focus group sessions provide us with greater insight into how faculty and students intend to use e-books in conjunction with scholarly activities. For instance, use often supports teaching and learning activities that involve discontinuous reading and quick reference. Based on these finds, we plan to continue discussions with publishers and aggregators in order to advocate for platforms that are DRM free, preserve annotations, and provide access to multiple users simultaneously, particularly in cases when e-book titles are purchased for course reserves. In this way, we hope to build an e-book collection that supports learning activities and removes frustrations associated with access and functionality barriers.

As we continue to build strong relationships with faculty members and students across campus, we plan to solicit feedback as we evaluate existing e-book platforms to determine which provide online environments that best support teaching and learning activities. Now that we have developed a method to examine search and discovery trends (Bakkalbasi and Goertzen, 2015) and have established strong channels of communication with the user community, we are in a position to explore evolving information needs on campus. We will continue our explorations by evaluating e-book platforms accessible through CUL to determine which provide online environments and general functionality required by the user community. This will assist in collection development decisions as we consider the future of the e-book collection at CUL and invest resources in materials and services that best support observed information needs.

Conclusions and discussion
This paper discusses the results from the second half of a year-long study that examined e-book discovery, access, and usage behaviors in our user community. The qualitative data collected through faculty interviews and student focus group sessions provided a greater understanding of the intent behind information seeking behaviors and e-book usage observed in a previous text analysis study (Bakkalbasi and Goertzen, 2015). The themes that emerged during the focus group and interview sessions suggest that the text analysis method is a reliable instrument to examine search and discovery trends across e-book collections. More importantly, this study brings a human sentiment to the discussion of e-book discovery, access, and use. It provided our user community with a voice and allowed them to share experiences so that CUL develops a deeper understanding of existing information needs. In this way, librarians can incorporate feedback into service development and proceed with confidence as collection development decisions are made.

Through our discussions with faculty members and students, we were able to identify broad themes regarding e-book discovery, access, and usage trends. In the future, we hope to continue examining these trends in a more granular fashion. For instance, we would like to conduct additional focus groups with undergraduate students in order to document discovery and usage trends. Also, we hope to further experiment with our original data set in order to determine if the text analysis method can be used to compare and contrast search and discovery patterns related to all formats collected at CUL. Through these activities, we will continue to facilitate strong channels of communication with our user community, develop a deeper understanding of information needs across campus, solicit feedback regarding library services, and understand how collection materials support scholarly activities.
References

Further reading

Appendix. Sample focus group and interview questions
1. Tell us about your experiences using e-books.
2. Thinking about the past academic year, how often have you used e-books? Tell us about your experience.
3. What are some of the advantages/disadvantages of using e-books for academic purposes?
4. What technologies or devices do you most often use when accessing e-books for academic purposes?
5. When you use e-books for academic purposes, where do you most often search for and/or find e-books?
(6) When you use an e-book for academic work, what three features are most important to you?

(7) Thinking about the past academic year, have you used an e-book from the university library? Tell us about your experience.

(8) Is there anything that Columbia University Libraries can do to improve e-book services or collections?

About the authors
Melissa Goertzen is the Collection Development Analysis and Support Librarian at the Columbia University Libraries. She has ten years of experience working as a Project Manager, Writer, and Librarian in the Academic Community across Canada and the USA. Her research focusses on strategic planning, the evaluation of workflows, and cost analysis. In 2015, she completed the e-Book Program Development Study, a two-year assessment project that documented the e-book landscape and developed strategies to drive collection development initiatives at the Columbia University. To learn more, please visit melissagoertzen.wordpress.com. Melissa Goertzen is the corresponding author and can be contacted at: mjg2227@columbia.edu

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