

Not in Love, or Not in the Know? Graduate Student and Faculty Use (and Non-Use) of E-Books

Erin Dorris Cassidy  
Assistant Professor, Web Services Librarian  
Sam Houston State University, Huntsville, TX  
SHSU Box 2179, Huntsville, TX 77341  
[ecassidy@shsu.edu](mailto:ecassidy@shsu.edu)  
936-294-4567 (Corresponding Author)

Michelle Martinez  
Assistant Professor, Reference Librarian  
Sam Houston State University, Huntsville, TX  
SHSU Box 2179, Huntsville, TX 77341  
[mmm034@shsu.edu](mailto:mmm034@shsu.edu)

Lisa Shen  
Assistant Professor, Reference Librarian  
Sam Houston State University, Huntsville, TX  
SHSU Box 2179, Huntsville, TX 77341  
[lshen@shsu.edu](mailto:lshen@shsu.edu)

**NOTICE: This is the post-print (i.e., final draft post-refereeing) of a work that was subsequently published in *Journal of Academic Librarianship*, VOLUME 38, ISSUE 6, 2012, [doi:10.1016/j.acalib.2012.08.005](https://doi.org/10.1016/j.acalib.2012.08.005).**

## Not in Love, or Not in the Know? Graduate Student and Faculty Use (and Non-Use) of E-Books

Keywords: e-books; graduate students; faculty; attitudes; user behavior; non-users

### **Abstract**

This study focuses on usage of electronic books (e-books) among advanced researchers, including graduate students and faculty, at a four-year academic institution. The researchers aimed to highlight differences in behavior, perception, and attitude between users and non-users of e-books. The survey findings suggest that, while a majority of these researchers do not necessarily favor e-books over print books, they do appreciate the convenience of the electronic format. Moreover, the results also indicate that many researchers may be entirely unaware of the library e-books available in their areas of study or may not fully realize all the features already being offered by some of these e-books, such as highlighting, note-taking, accessibility options, and downloading. These findings provide timely and practical applications for librarians interested in increasing library e-book usage with focused marketing plans targeting the needs of specific patron segments.

### **Introduction**

Libraries have always been at the forefront for information dissemination. In recent years, the mission to improve information accessibility has brought librarians into the realm of electronic books (e-books). Consequently, there is a growing body of literature examining library patrons' e-book usage and preferences. Nonetheless, most e-book studies to date have focused on e-book users, thus neglecting people who are not using e-books due to personal choice, lack of

awareness, or accessibility issues. Moreover, the majority of e-book studies from academic libraries have focused on either the general patron population as a whole or the largest patron group, undergraduate students. Therefore, this study aims to address gaps in the scholarship on e-books by examining preferences and characteristics of both patrons who use e-books and those who do not (non-users). In addition, the study will focus on academic library patrons who are most committed to in-depth research: graduate students and faculty members.

This study was conducted at Sam Houston State University (SHSU), a Carnegie Research Doctoral university located in a small town in East Texas, which has traditionally emphasized undergraduate education and first-generation college attendees. The SHSU library began providing e-books in 1999 and now provides access to more than 71,000 e-books on platforms such as EBSCO eBooks, ebrary, Safari Tech Books Online, and others. The library has conducted several patron-driven acquisition (PDA) projects with e-books, has purchased or subscribed to e-book packages, and has purchased many single e-book titles which were selected by subject librarians. At the time this study was conducted, the library's methods of promoting e-books to users included: catalog records for individual e-book titles; a dedicated page of e-book database links on the library website; links to both e-book databases and specific e-book titles in online subject and course guides; and direct links to featured e-book titles in the library newsletter. The library has also actively encouraged faculty across campus to integrate e-books into their courses: several workshops hosted on campus have included instruction in the library's e-book resources, and the library provides both online instructions and one-to-one consultations for faculty to learn how to embed links to e-book databases and direct links to e-book titles into their courses.

## Literature Review

Academic libraries are the leaders of technological innovation within academic institutions because they are at the center of research and scholarship,<sup>1</sup> and academic libraries lead the way in understanding patrons' usage of e-books.<sup>2</sup> E-reading is on the rise: within the last year, 21% of American adults report having read an e-book, ownership of e-book reading devices has significantly increased, and there are "four times more people reading e-books on a typical day now than was the case less than two years ago".<sup>3</sup> E-books in libraries have been around for more than a decade.

One of the earliest studies on e-book usage was conducted by Columbia University to examine usage statistics and user experiences; however, anything online was considered an electronic resource for that study, including email, listservs, websites, and library resources.<sup>4</sup> Several reports suggest that among faculty and students, including graduate students, e-books are most popularly used for consultation or fact-finding rather than reading in entirety.<sup>5</sup> To remain relevant in the 21<sup>st</sup> century, a library "must evaluate its place in a world increasingly lived online,"<sup>6</sup> and this conclusion is supported by the *2011 Ebook Penetration and Use Report* and other reports like it that examine the increase of electronic or online services. Approximately 95% of academic libraries offer e-books, and not only is growth in circulation expected, but also 19.1% of budgets will be set aside to support e-book purchase over the next five years.<sup>7</sup>

However, despite the growth in e-book circulation, budget, and purchasing, there still remains a population of non-users with their responses resoundingly similar regardless of year, academic level, or location: they prefer "real" books—the paper format is the highest-ranked reason for not wanting or not using e-book formats.<sup>8</sup> Studies have shown that, when faced with

information-finding tasks, students are more successful with paper than e-books, because their understanding of that format is higher.<sup>9</sup>

In contrast, the interactivity of e-books is an advantage over print with features “such as editing tools, hyperlinks, and search capabilities . . . but these features must function well and be easily understood by the user.”<sup>10</sup> Nariani reported that 41.1% of graduate students surveyed (out of 58 responding) and 30.3% of faculty (out of 36 responding) said “hyperlinks to citations in books or links to other books” (interactivity) was a “very important feature in e-books.”<sup>11</sup> Interestingly, the National E-Books Observatory Project that surveyed multiple U.K. higher institutions and evaluated a specific set of e-books noted that “data from the user survey indicates that interactivity is not seen by students as a particular advantage of e-books,”<sup>12</sup> despite demands for interactivity among faculty and students.<sup>13</sup>

Distance users are often over-looked in e-book studies, or at least this population is not differentiated from the rest when e-book surveys are reported. However, Central Michigan University (CMU) and Royal Roads University (RRU) in Canada studied e-book use among distance learning students.<sup>14</sup> RRU’s population is 80% distance learning, including faculty who teach at a distance;<sup>15</sup> whereas only 17% of CMU’s total student population at the time of their study were off-campus.<sup>16</sup> Approximately 51% of those surveyed by RRU, which included all faculty and students—no distinction was made between graduate or undergraduate—said they had “used or tried to use” the available e-books at RRU’s library; the CMU study mentioned that off-campus students were Master’s students, but did not make clear if this counted for the entire off-campus population. CMU’s study was notably limited by examining only user statistics from e-book platforms, and further limited to those platforms that could provide statistics.

In contrast, part of RRU's survey addressed user satisfaction, as the survey asked about users' satisfaction with e-book collections by subject area. Additionally, RRU's survey did not limit respondent comments to only e-book collections within their field of study, but instead allowed them to comment on all e-book collections regardless of their familiarity; the SHSU survey reported in this paper specifically asks all respondents to answer the survey questions with regards only to their field of study and research. Therefore, RRU answers regarding subject area satisfaction may not be entirely accurate. Furthermore, the RRU study does not differentiate between e-books read for personal pleasure or research; in this SHSU survey, respondents are asked specifically to rate and discuss only their primary fields of study with regards to research and not personal interest.

Both foreign and U.S. studies, even those conducted by e-book platforms,<sup>17</sup> have evaluated awareness, usage, attitudes, and behaviors<sup>18</sup> with strikingly similar user responses in the following areas: preferences to browse or read chapters versus reading a full book; complaints regarding platforms and e-book accessibility; and satisfaction levels in the middle range between satisfied and very satisfied.<sup>19</sup> Among studies focused on academic libraries are those that include multiple-university comparisons or system-wide studies.<sup>20</sup> Some studies focus on graduate students<sup>21</sup> or on faculty,<sup>22</sup> or both, though studies focusing on both are rarer. One study on both graduate students and faculty was conducted at the University of Oklahoma; its focus was on graduate students and faculty only in the geosciences, as well as specific e-book platforms only,<sup>23</sup> whereas this SHSU study surveyed a cross-disciplinary population and did not focus on specific platforms.

Recent U.S. research on e-book use and non-use that surveys faculty and students at four-year, non-specialized, higher education institutions comes from two research universities,

University of Denver and University of Illinois. In contrast to the populations examined in those studies, the population at SHSU has different characteristics. Not only are those universities in an urban setting, whereas SHSU is located in a smaller, more rural area, but they also have a larger graduate-level population of 6,004 and 11,829 respectively, in comparison to SHSU's graduate-level student population of approximately 3,360. Furthermore, the SHSU study is not concerned with a particular e-book platform, unlike the University of Denver, whose study was concerned primarily with NetLibrary, and the University of Illinois, whose study had a section focused specifically on Springer. Neither of these studies asked users to focus on their main field of study or on monographs related to their field whereas the SHSU study does, and SHSU's study has also excluded reference materials such as encyclopedias.

## **Methodology**

The population for this survey comprised the entire faculty and graduate student body of SHSU in the Fall 2011 semester, including both on-campus and distance-learning students. The survey included 33 questions total; however, many questions were set to appear only to certain respondents—e.g., faculty only, distance learners only—so no one participant received all 33 questions. Additionally, some survey questions were optional, so not all survey respondents answered those questions. Percentages reported represent a percentage of the people who answered a particular question, not a percentage of all the people who took the survey.

The first part of the survey investigated the respondent's use of and opinions about library e-books and e-reader devices; respondents were also asked to rate the importance of various e-book features. Respondents were then required to classify themselves as graduate students or faculty to receive their second set of specialized questions; respondents who were

primarily graduate students but also taught classes were instructed to classify themselves as graduate students. Therefore the “faculty” respondent group in these results includes tenured, tenure-track, and adjunct faculty but not teaching assistants (TAs).

In the second section of the survey, students were asked to provide details on how their classes are delivered (on-site, online, etc.) and whether they qualify for Distance Learning Services from the library; the Distance Learners were then asked further questions about how they prefer to acquire books they need to read for class, not including the primary required textbook. Faculty questions involved the levels and quantities of classes taught in an average semester, expectations for changes in the online teaching load, and whether the faculty member would recommend e-books to students. Age and gender were also collected at the end of the survey. The full questionnaire is at <http://library.shsu.edu/libfac/EbookUsageSurvey2011.pdf>.

On Oct 6, 2011, an invitation to participate in the study was sent to the official university email accounts of faculty and graduate students, stating the purpose of the study and linking to the survey hosted on Survey Monkey, a commercial survey tool. The email also included details about a prize drawing for three gift card to Barnes & Noble, which would be awarded to randomly drawn survey respondents. A reminder email was sent on Oct 21, 2011, and the survey closed on Nov 1. An online tool was used to generate random numbers for prizewinner selection.

## **Results**

The survey link was delivered by email to 2,621 graduate students and 1,151 faculty members. A total of 322 surveys were returned for an overall response rate of 8.5%. Eleven responses were subsequently removed from the results pool due to incompleteness. Graduate students accounted for 63% (197 of 311 usable surveys) of the respondents. The majority of



respondents were female (70%), and 65% of the respondents had backgrounds in the humanities. The average age of respondents was 39 (35 for students and 48 for faculty).

The predominance of female respondents was due to demographic characteristics of the survey population rather than response rate differences between gender groups: at the time of this survey, 67% of the graduate student population was female. Also, there were no significant differences between responses from male and female respondents. On the other hand, based on a t-test of means (of independent samples), there were statistically significant differences ( $\alpha = 0.05$ ) between the average age of e-book users (37 years) and non-users (41 years).

Overall, 38% of respondents have used e-books from the library. The proportion of e-book users was similar amongst graduate student (40%) and faculty (37%). The majority (68%) of graduate student non-users indicated they would probably or definitely use e-books in the future compared to 47% of faculty non-users. Also, 22% percent of faculty non-users indicated they would “definitely” or “probably” continue to avoid e-books in the future, an attitude that was shared by only half (11%) of their graduate student non-user counterparts. Nonetheless, only 31% of all student and faculty non-users reported a dislike of e-books, 69% simply did not anticipate any need to start using them.

Among respondents who have used library e-books, when given the option, 28% would prefer e-books and 31% would prefer print books. “Tangibility,” as one respondent puts it, is one of the most cited reasons for preference for print. An additional 42% either did not care (14%) or preferred some library e-books but disliked others (28%). The latter finding likely reflects user preference for particular e-book platforms. Interestingly, more e-book users (70%) than the non-users (31%) reported a dislike for e-books as the reason they prefer print.

When it comes to e-book features, both user and non-user groups ranked the ability to search the whole text and printing as the most important functions, followed by the abilities to take notes and highlight texts. Both groups also agreed that the ability to print individual pages (ranked 4.01 out of 5) was more important than the ability to print an entire chapter (3.80 out of 5) or the whole book (3.05 out of 5). Text interactivity, such as embedded videos and hyperlinks, was ranked as the least important feature by both groups.

Unsurprisingly, 71% of graduate students (compared to 47% of faculty) ranked automatic citation as a “very or somewhat important” e-book feature. In addition, more non-users (77%) than users (68%) placed high importance on the ability to download and read e-books offline, which was a feature not offered by library e-books at the time of this survey. Even though about half of all respondents (53% for users and 51% for non-users) owned electronic devices that can be used for reading, such as iPads or Nooks, the majority of non-users (82%) indicated they would be more likely to use library e-books if they have access to an electronic device to read e-books.

Regardless of their own preference for print or e-books, most faculty would like the library to purchase more e-books (74% of the users and 76% of non-users) to support their field of studies. Interestingly, faculty also showed more willingness to recommend e-books to their undergraduates (75%) than graduate (63%) students. This is noteworthy because 81% (130 out of 161) of graduate students who did not prefer e-books, or had never used one, indicated that they would be more likely to read e-books recommended by professors.

Forty percent of the graduate respondents were self-reported distance learners, which was defined as students who only attended course online or off the main SHSU campus in Huntsville and lived outside of Walker County. While these distance learners were not any more likely to

have used e-books, more distance learning non-users (70%) indicated they will “probably or definitely” give e-books a try in the future than other non-users (60%).

Furthermore, when they need to read a book for class, 55% of distance learners indicated they would read the book online from the library, 21% would buy a print copy for themselves, and 8% would borrow the book from another library closer to where they live. Only 7% of respondents would consider borrow the book by mail through the library’s Distance Learning Service. Moreover, only 7 of the 80 self-identified distance learners have ever used the library’s Distance Learning Service, and 4 of these 7 respondents would prefer to read an e-book than borrowing a print copy by mail.

Lastly, only 11% (34 out of 311) of all respondents surveyed have used library e-books and would prefer to use an e-book over print. These committed users did not differ from other respondents in other measures, including age, gender, or field of study. However, they were more likely to own an electronic device for reading (74%) than their counterparts (50%).

## **Discussion**

Sixty-two percent of survey respondents had not used library e-books at all, or at least not the non-reference, largely monographic works on which this study focused; this fact startled the authors because of the money libraries are spending on these resources and the prevalence of e-reading in the general population.<sup>24</sup> Among the mere 38% (124) of graduate students and faculty members who had used library e-books, almost 54% (37) reported that they disliked library e-books specifically (5) or disliked all e-books in general (32). However, considering current publishing trends, environmental issues, shelf-space concerns, and the need to serve a growing population of distance students—who may not prefer e-books but will use them for

convenience—one can conclude that e-books in academic libraries are not just a passing fad. Therefore academic librarians should investigate the reasons behind advanced researchers' reluctance to try and dissatisfaction with e-books. Some of this dissatisfaction may stem from a truly negative feeling towards the technology itself, but some of it may also be tied to a simple lack of knowledge about all the advanced features available in library e-books. On the one hand, when there is a genuine personal preference for print, it is not necessary, and perhaps not even desirable, for libraries to attempt to force a change in user behavior. On the other hand, when dissatisfaction is caused by a lack of awareness or misunderstanding of the technology and its available features, or by aspects of description, discoverability, and access which a library can perhaps improve, then it behooves libraries to promote e-books widely, educate users on advanced features, and create the opportunity for potential users to transform themselves into users.

This study identified several key areas for both libraries and e-book vendors to consider with regards to improving the library e-book experience for advanced researchers. This discussion will focus on e-book features, single versus multiple user models, accessibility and portability, and marketing.

### **E-Book Features**

Some user preferences about e-book features were not surprising to the authors. For instance, searching and printing both ranked very highly in importance, and both are among the most common features found consistently across e-book platforms. However, the authors were somewhat surprised by the users' greater desire to print individual pages, versus printing a chapter or an entire book. This emphasis does make sense from the perspective of printing only a

quote or passage where needed, yet also seems at odds with the number of students who inquire at the SHSU Library about how to print e-books in their entirety.

Students expressed a clear preference for having automatic citation tools available in e-book platforms, much more so than did faculty. Automatic citation tools may be controversial in some libraries because librarians recognize the limitations of, and the frequency of errors in, computer-generated citations. However, when so many free citation-generating services exist on the web, librarians who oppose students' use of such tools are likely fighting a losing battle. Automatic citation tools inside e-book platforms, if not always accurate, at least provide a highly convenient starting point and improve user satisfaction with the experience of e-book usage by fulfilling an expectation of added value.

Responses suggest that students—especially distance students who cannot access a physical campus library—will use an e-book if it is the easiest option at that moment to save time and money. However, they would prefer to have a print book to facilitate annotation, bookmarking, highlighting, jumping back and forth between key pages, and other such activities with which most researchers will be familiar. The authors interpret this as evidence that many students are choosing e-books, not because they specifically prefer the digital medium, but simply because the e-books fill a need when students feel they have little other choice.

One student commenter phrased this issue very concisely: “I like e-books because they save me money, but if I had a choice, I like to have print books.” Another student elaborated on this same feeling:

“I like e-books and use them regularly for certain research and ease of access. Since I am doing my Masters online, this is a helpful resource and flows well with my other online coursework. Nevertheless, if I have a choice, I prefer a print book.”

This tension between the physical and digital serves to highlight another key feature that should be included in e-book platforms to support increased use by graduate students and faculty: annotation. Almost 40% of respondents rated note-taking capabilities as 5: *Very Important*; that percentage climbs to nearly 70% when including those who rated this feature as 4: *Somewhat Important*. Additionally, faculty respondents reported a greater likelihood of recommending e-books to undergraduates versus graduate students, and this may also speak to their recognition of the importance of being able to interact more fully with a text at the advanced research level.

Furthermore, an existing body of literature shows that active reading techniques such as annotation and highlighting can assist a reader's critical engagement with a text and improve reading comprehension.<sup>25</sup> Therefore it is not surprising that these features would be in demand as researchers move from a physical to a digital reading environment, and this survey's responses have certainly made this demand clear (Table 1).

**Table 1: Comments Concerning E-Book Features: Themes in Annotation & Interaction:**

<b>Theme</b>	<b># of Comments Reflecting Theme</b>
Desire to mark up text with written notes, either in margins or on sticky notes	5
Desire to highlight in text	5
Desire to fold or otherwise "earmark" pages	4
Desire to interact with multiple pages and get a sense of "the whole book," not just a single page at a time	1

Some platforms, such as ebrary and EBSCO eBooks (formerly NetLibrary), are well equipped to accommodate interactions such as highlighting, note-taking, and the saving of annotations to a personal account. However, surprisingly, not all new e-book platforms incorporate this functionality. In October 2011 authors of this research study contacted Customer

Service at Oxford University Press, who indicated that their new platform for university press e-books, University Press Scholarship Online, did not provide a capability for highlighting or note-taking; their response did not indicate that such capability was presently being planned. Since many titles released on such a scholarly platform would likely appeal to graduate and faculty researchers, it is unfortunate that the platform does not provide such a desired mechanism for readers to critically engage with the texts. The authors hope that all e-book publishers and platform developers will carefully consider the need for these features to help facilitate e-book adoption by some advanced-level researchers, who may currently opt for print over electronic only because the e-books they have experienced so far are not yet adequately serving their needs.

Another very important feature was emphasized by study respondents: the ability to copy and paste a snippet of text. Though there was a time when platforms such as NetLibrary were more restrictive of copying text, the e-book industry is now embracing the capability more fully. This is another example of an area in which users naturally expect the digital environment to lend added value over a print book. Faculty respondents in particular noted the importance of this capability when compiling lecture material for courses; retyping and citing a long passage is tedious when it seems so logical to expect a cut-and-paste function. The authors feel this feature is implemented especially well in the ebrary platform, where a citation to the source is automatically pasted along with a copied quotation. However, even this feature could be further improved by allowing users to specify a preferred citation format; citations are currently inserted using no particular style formatting at all.

Interestingly, respondents cited interactive elements such as embedded video and hyperlinks as the least important features of e-books. Advanced users care more about the core usability of a title than about flashy extras. Because these extras usually require a live Internet

connection, the opinions concerning these interactive features must also be considered in light of the users' distinct preference for the ability to read offline, which is discussed in more detail in the section below on accessibility.

### **Single Versus Multiple Users**

Common models for the licensing and restriction of e-books create an additional obstacle for advanced researchers. A number of write-in comments received during this study—unbiased by any particular question theme or wording—indicate that students and faculty expect multiple-user access to e-books. To quote one student, it is “somewhat silly” for e-books to be accessible by only one reader at a time. Users are likely to make an assumption that, because an e-book is digital, it should transcend the physical limitations which necessitate single readership. They do not understand—nor, frankly, would they likely care—about the complex licensing and cost issues which are negotiated between libraries, vendors, and publishers. They care about accessibility. One graduate student commented on the issue with great insight (emphasis added):

“Highlight functions are very important, as well as the ability for **more than one person to use** the book at once. **I would even sign up for and pay an extra fee** to have this service. It is very annoying to have to wait for an electronic book to be available. I understand that **if the book were a print book, it would be out of service, but these are e-books**, and that function should be available as if there were unlimited copies in the e-library.”

To put this issue into perspective, in a world where a whole project team can simultaneously edit a wiki or a document in the Google Docs™ program, students cannot fathom why only one person at a time can read an e-book. Of course, this can vary based on a library's licensing models, but for many libraries, multiple-user licensing is cost-prohibitive unless the



demand for a particular title is incredibly high—a situation which may occur for the latest popular novel but is unlikely to be seen for a scholarly monograph. E-book vendors, especially those selling academic titles, should be exploring new and more economical ways of working with libraries to decrease the print-world restrictions—such as single-user checkout—that have been artificially imposed on e-books.

### **Accessibility and Portability**

Another important point emphasized by this study is the issue of e-book accessibility. This is a multi-faceted issue which encompasses not only an e-book's usability by people with disabilities, but also its portability and cross-platform compatibility.

The question of serving users with disabilities is a double-edged sword when speaking of e-books: nearly equal numbers of respondents in this survey indicated that they have a disability which makes e-books harder to use or that they have a disability which makes e-books more beneficial. For every user who experiences discomfort during prolonged reading on a digital screen, another user will find value in the ability to zoom in closer, adjust font face, color and size, adjust brightness and contrast, or make use of other display tools. On this point, the authors recommend that e-book publishers and platform designers attempt to provide as many options as possible for visually adjusting a text's display, as well as options for printing and converting text to speech, in order to provide the best possible experience to the maximum number of users, regardless of abilities.

Cross-platform compatibility and portability form another piece of the e-book accessibility puzzle, as is clearly evident in student responses (Table 2). An e-book must be accessible for reading on a computer regardless of what operating system a reader uses. Moreover, the e-book should be available for download to most major portable devices, rather

than being accessible only on a computer: this speaks not only to a user's preference for reading environment, but also to a user's continued access to an Internet connection for the duration of reading.

**Table 2: Comments Concerning E-Book Features: Themes in Accessibility:**

Theme	# of Comments Reflecting Theme
Desire for compatibility with screen-reading software (text-to-speech)	5
Desire to change text size or font for readability or use with magnification software	8
Desire to download to e-readers ( <i>numbers for specific readers below total more than 17 because some comments request the use of multiple devices</i> )	17
Desire for compatibility with Amazon Kindle specifically	9
Desire for compatibility with iPad specifically	4
Desire for compatibility with Nook specifically	5
Desire to download to PC/laptop for offline reading	5
Desire to download for offline reading with no time limit	1

Fortunately, the outlook for e-book download has changed significantly over the past year. Although EBL began offering downloads in Adobe Digital Edition (ADE) format in late 2008, it took several years for many other major e-book aggregator platforms to catch up.<sup>26</sup> After the transition from OCLC NetLibrary to EBSCO eBooks was completed in mid-2011, the platform incorporated download options for offline reading on computers, e-readers, and tablets, using Adobe Digital Editions (ADE). Download functionality for offline reading was released on the ebrary platform in late 2011, although the capability is somewhat exaggerated: the option to download a whole book in ADE format is displayed for every book, but is actually available for certain titles only (based on publisher restrictions), while other books can only be downloaded partially, up to 60 pages, in PDF format. Finally, MyiLibrary announced in early 2012 that users can now download certain titles on their platform in ADE format. These examples provide

positive signs that many industry-leading platforms are moving in the right direction to not only provide download, but to do so with standardized tools like ADE and PDF, providing a more consistent user experience across e-book platforms.

Obviously, the Amazon Kindle device, specifically referenced by several users, poses a unique challenge. Traditionally, the Kindle has been more closed, operating only with Amazon's own e-book format or with library e-books loaned through Overdrive, a platform more likely to be found in public libraries than in academic libraries. Widespread user ownership of and preference for this particular device leads to user frustration when the e-book platforms in academic libraries are not compatible, but it is a frustration which librarians share and can do little to mitigate. The latest model, the Kindle Fire, is an exception which suggests that perhaps Amazon is turning a corner: this tablet reader will allow the download of e-books that use Adobe Digital Editions authentication. However, these sorts of distinctions between devices—especially different models of the same brand—are not always understood by library users. If one student downloads a book onto a Kindle (Fire), another student may expect the same capability from his Kindle (Touch). Academic libraries should explore partnerships with other campus entities—particularly those that interact with incoming students or faculty, and perhaps even with campus bookstores—to broaden access to information about e-reading and tablet devices. This could assist new students and faculty in selecting personal-use devices to maximize the accessibility of library e-books, if they are interested in such access.

Moving forward, the library must determine how best to advertise these download options and educate students and faculty on their use—a somewhat cumbersome prospect due to the wide variation in devices, but not an insurmountable challenge. Since a significant percentage of non-users in this study indicated that e-reader ownership and compatibility would

greatly increase their use of library e-books, it is especially important for librarians to instruct users on e-reader use and download methods. Library e-reader loan programs may also be significant in making these devices (and, by extension, e-book content) available to users who either have no other means of access or else whose decision to purchase a personal device may be positively impacted by exposure and use through the library.

### **Marketing**

In addition to marketing e-book download capabilities, this study has other implications as well for library marketing endeavors. Comments from multiple survey respondents indicate a lack of knowledge about the fact that the SHSU Library provides access to e-books in the first place. Additional comments demonstrate that some users, even if they are aware that e-books are offered, are unaware of features and functionality available in all or most of the library's current e-book platforms. Such comments point to a disconnection between library marketing and users: is the library not advertising the right information about its resources, or is it just not advertising the information in the best way to reach its users? This study does not provide easy answers on this issue, but it highlights the need for libraries to think carefully about their marketing strategies with relation to e-books, in order to ensure that each user receives the right information about resources in relation to their needs.

Finally, librarians hoping to promote their e-book collections more widely among students may want to reflect on the finding that 81% of graduate students who did not prefer or had never used e-books reported that they would be more likely to read e-books recommended by their professors. By partnering with teaching faculty who are excited to advocate e-books, librarians may give more graduate students the chance to explore an option of which they were

previously unaware or to discover new value in a technology which they previously misunderstood.

### **Further Research**

While this study raised a number of pertinent issues regarding both the use and non-use of e-books, it does have a low response rate. Therefore, it would be difficult to generalize the study findings beyond the context of Sam Houston State University. Similar studies with broader population groups would further benefit current scholarship on e-books. Also, the survey relied on respondents' self-reported usage and attitude of e-books. Consequently, responder bias due to self-selection is another possible issue.

This study raises some questions concerning the impact of e-books on distance learning services by mail. Some libraries have already begun shifting interlibrary loan activities to a more on-demand, e-acquisition model. Should libraries be considering a similar model for providing resources to distance students? When a student places a request for a book from the campus library, is it more cost-effective or time-efficient for the library to simply purchase an e-book duplicate, rather than packaging and mailing the print title to the student? Further research in this area might be enlightening to academic libraries serving distance populations.

Additional research might also be warranted on the question of how students find e-books. For instance, the authors have concerns that the lack of awareness about e-books in their own library might, in part, relate to discoverability. Some e-books, such as those purchased on the EBSCO eBooks and ebrary platforms, are added to the library's online catalog. Electronic titles from certain other collections, on the other hand, are not represented in the catalog. This creates a problem of only partial discoverability if a user relies solely on the catalog to identify

books and does not also search in various electronic databases. This problem is exacerbated as more and more databases which previously focused only on periodical content begin adding books to their collection, thus blurring the lines between “journal indexes” and “book indexes” and increasing the number of places where a user must search in order to obtain a truly comprehensive view of the library’s electronic book collection. If the library could provide a better mechanism to search ALL e-book content at once, perhaps users would be more aware of all the e-books available in their field of study. However, problems exist with both technology and library resources (staff, time, money, etc.). The authors’ library implemented EBSCO Discovery Service shortly after this study was conducted, and the researchers are interested to observe over time whether this tool has any beneficial impact on the discoverability of e-books across sources.

## **Conclusion**

The rise of e-books in both commercial and academic markets not only signifies the prevalence of user preference for electronic information delivery but also has the potential to impact users’ research processes. Therefore, this study analyzed the user behavior of advanced academic researchers and examined their perceptions towards e-books. The findings indicate that a significant portion of faculty and graduate students has yet to use any library e-books for research. However, the majority of these non-users did not dislike the e-book format: the primary reasons for the non-use were the lack of awareness of and, consequently, lack of perceived need to use the library’s e-book collections. More importantly, the great majority of non-users indicated they would prefer e-books over print books when access to the e-book format is more convenient. These findings provide marketing implications for librarians to improve e-book

usage amongst graduate students and faculty by identifying specific user segments, such as distance learning students, that would be most receptive to the benefits of e-books, and then highlighting the e-book features most important to these user groups. Moreover, the study also uncovered the perceptions and attitudes of current users towards e-books, and offered practical insights on the types of improvement to e-book functionalities that librarians should advocate for their patrons.

---

<sup>1</sup> Lesley M. Moyo, "Electronic Libraries and the Emergence of New Service Paradigms", *The Electronic Library* 22, no. 3 (2004): 220-230.

<sup>2</sup> Diana Ramirez and Suzanne Gyeszly. "NetLibrary: A New Direction in Collection Development", *Collection Building* 20, no. 4 (2001): 154-164, accessed April 24, 2012, doi: 10.1108/EUM0000000005995.

<sup>3</sup> Lee Rainie, Kathryn Zickuhr, Kristen Purcell, Mary Madden, and Joanna Brenner, "The Rise of E-Reading", Online. Pew Internet & American Life Project. (2012): 4. Available: <http://libraries.pewinternet.org/files/legacy-pdf/The%20rise%20of%20e-reading%204.5.12.pdf> (April 15, 2012).

<sup>4</sup> Electronic Publishing Initiative at Columbia (EPIC). *EPIC Initiative at Columbia (EPIC) Online Use and Costs Evaluation Program: Final Report*. Accessed April 14, 2012. <http://www.epic.columbia.edu/eval/find12.html>.

<sup>5</sup> Nariani, 5; Noorhidawati Abdullah and Forbes Gibb, "How Students Use E-Books—Reading or Referring?", *Malaysian Journal of Library & Information Science* 13, no. 2 (2008): 1-14; JISC. *Dispelling Myths About E-Books with Empirical Evidence*. May 24, 2012. <http://www.ucl.ac.uk/infostudies/research/ciber/downloads/JISC-summary.pdf>.

<sup>6</sup> Jennifer C. Hendrix. Checking Out the Future. Online. ALA Office for Information Technology Policy Brief no. 2 (2010) Available: [http://connect.ala.org/files/69099/ala\\_checking\\_out\\_the\\_pdf\\_93915.pdf](http://connect.ala.org/files/69099/ala_checking_out_the_pdf_93915.pdf) (April 20, 2012).

<sup>7</sup> Library Journal and School Library Journal. *2011 Ebook Penetration & Use in U.S. Academic Libraries*. Accessed April 24, 2012. <http://www.thedigitalshift.com/research/ebook-penetration/purchase/>.

<sup>8</sup> Jane E. Holmquist, "Survey on the Use of Electronic Journals at Princeton", Online. *Library and Information Services in Astronomy III ASP Conference Series* 153 (1997) Available: <http://www.stsci.edu/stsci/meetings/lisa3/holmquist.html>; Roesnita Ismail and A. N. Zainab, "The Pattern of E-Book Use Amongst Undergraduates in Malaysia: A Case of To Know Is To Use", *Malaysian Journal of Library & Information Science* 10, no. 2 (2005): 1-23. Library Literature & Information Science Full Text (502966525); Cynthia L. Gregory, "'But I Want a Real Book': An Investigation of Undergraduates Usage and Attitudes Toward Electronic Books", *Reference & User Services Quarterly* 47, no. 3 (2008): 266-273. Education Research Complete (32147098); Ming-der Wu and Shih-chuan Chen, "Graduate Students' Usage Of and Attitudes Towards E-Books: Experiences from Taiwan", *Program: Electronic Library & Information Systems* 45, no. 3 (2011): 294-307, accessed April 21, 2012, doi: 10.1108/00330331111151601.

<sup>9</sup> Selinda Adelle Berg, Kristin Hoffmann, and Diane Dawson, "Not on the Same Page: Undergraduates' Information Retrieval in Electronic and Print Books", *The Journal of Academic Librarianship* 36, no. 6 (2010): 518-525; Marilyn Christianson and Marsha Aucoin, "Electronic or Print Books: Which Are Used?", *Library Collections, Acquisitions, & Technical Services* 29, no. 1 (2005): 71-81, accessed April 2, 2012, doi: 10.1016/j.lcats.2005.01.002.

<sup>10</sup> Berg, Hoffman, and Dawson, 523.

<sup>11</sup> Nariani, 7.

<sup>12</sup> Lorraine Estelle and Hazel Woodward, "The National E-Books Observatory Project: Examining Student Behaviors and Usage", *Journal of Electronic Resources Librarianship* 21, no. 2 (2009): 175, accessed April 11, 2012, doi: 10.1080/19411260903039645.

<sup>13</sup> Danielle M. Carlock and Anali Maughan Perry, "Exploring Faculty Experiences with E-Books: A Focus Group", *Library Hi Tech* 26, no. 2 (2008): 244-54, accessed April 12, 2012, doi: 10.1108/07378830810880342; Rajiv Nariani, "E-Books in the Sciences: If We Buy It Will They Use It?", Online. *Issues in Science and Technology Librarianship* 59 (2009) Available: <http://www.istl.org/09->

- [fall/article3.html](#); Noorhidawati Abdullah and Forbes Gibb, "Students' Attitudes Towards E-Books in a Scottish Higher Education Institute: Part 1", *Library Review* 57, no. 8 (2008) 593-605, accessed April 12, 2012, doi: 10.1108/00242530810911798.
- <sup>14</sup> Pamela Grudzien and Anne Marie Casey, "Do Off Campus Students Use E-Books?", *Journal of Library Administration* 48, no. 3/4 (2008): 455-466.
- <sup>15</sup> Croft and Davis, 544.
- <sup>16</sup> Grudzien and Casey, 461.
- <sup>17</sup> Springer. "eBooks: The End User Perspective," Online. *Springer* (2009): 1-8, available: [http://www.springer.com/cda/content/document/cda\\_downloaddocument/eBooks++the+End+User+Experience?SGWID=0-0-45-608298-0](http://www.springer.com/cda/content/document/cda_downloaddocument/eBooks++the+End+User+Experience?SGWID=0-0-45-608298-0) (April 11, 2012); Bowker. "British University Students Still Crave Print, Says New BML Study," Online. *Bowker* (2012): n.p., available: [http://www.bowker.com/en-US/aboutus/press\\_room/2012/pr\\_03152012.shtml](http://www.bowker.com/en-US/aboutus/press_room/2012/pr_03152012.shtml) (April 11, 2012); Marty Mularkey, "Library and Two International E-book Surveys", *Acquisitions Librarian* 19, no. 3/4 (2007): 213-230; Carol Ann Hughes and Nancy L. Buchanan, "Use of Electronic Monographs in the Humanities and Social Sciences", *Library Hi Tech* 19, no. 4 (2001): 368-375.
- <sup>18</sup> Peggy Seiden, Kris Szymborski, and Barbara Norelli, "Undergraduate Students in the Digital Library: Information Seeking Behavior in an Heterogeneous Environment", *Association of College & Research Libraries* (1997): n.p., accessed April 8, 2012, <http://www.ala.org/acrl/publications/whitepapers/nashville/seidenszymborski>; Barbara Pfeil Bittenfield, "Usability Evaluation of Digital Libraries", *Science and Technology Libraries* 17, no. 3/4 (1999): 39-59; Chris Armstrong and Ray Lonsdale, "Challenges in Managing e-books Collections in UK Academic Libraries", *Library Collections, Acquisitions, and Technical Services* 29, no. 1 (2005): 33-50, accessed April 11, 2012, doi: 10.1016/j.lcats.2004.12.001; Heting Chu, "Electronic Books: Viewpoints from Users and Potential Users", *Library Hi Tech* 21, no. 3 (2003): 340-346; Jacqueline Ann Chelin, Jason Briddon, Elspeth Williams, Jane Redman, Alastair Sleat, and Greg Ince, "E-books are Good if There Are No Copies Left: A Survey of E-book Usage at UWE Library Services", *Library and Information Research* 33, no. 104 (2009): 45-65, accessed April 8, 2012, <http://eprints.uwe.ac.uk/155/>; Yen-Yu Kang, Mao-Jiun J. Wang, and Rungtai Lin, "Usability Evaluation of E-books", *Displays* 30, no. 2 (2009): 49-52, accessed April 11, 2012, doi: 10.1016/j.displa.2008.12.002; Wendy Allen Shelburne, "E-book Usage in an Academic Library: User Attitudes and Behaviors", *Library Collections, Acquisitions, & Technical Services* 33, no. 2/3 (2009): 59-72, accessed April 11, 2012, doi: 10.1016/j.lcats.2009.04.002; Dong-Hee Shin, "Understanding E-book Users: Uses and Gratification Expectancy Model", *New Media & Society* 13, no. 2 (2011): 260-278, accessed April 11, 2012, doi: 10.1177/1461444810372163; Abdullah and Gibb; Nancy Foasberg, "Adoption of E-Book Readers among College Students: A Survey", *Information Technology and Libraries* 30, no. 3 (2011): 108-128.
- <sup>19</sup> K.T. Anuradha and H.S. Usha, "Use of E-books in an Academic and Research Environment", *Program: Electronic Library and Information Systems* 40, no. 1 (2006): 48-62, accessed April 11, 2012, doi: 10.1108/00330330610646807.
- <sup>20</sup> Hamid R. Jamali, David Nicholas, and Ian Rowlands, "Scholarly E-books: The Views of 16,000 Academics: Results from the JISC National E-Book Observatory", *Aslib Proceedings* 61, no. 1 (2009): 33-47, accessed April 11, 2012, doi: 10.1108/00012530910932276.
- <sup>21</sup> B.L. Folb, C.B. Wessel, and L.J. Czechowski, "Clinical and Academic Use of Electronic and Print Books: The Health Sciences Library System E-book Study at the University of Pittsburgh", *Journal of the Medical Library Association* 99, no. 3 (2011): 218-228; Timothy P. Bailey, "Electronic Book Usage at a Master's Level University: A Longitudinal Study", *Journal of Academic Librarianship* 22 (2006): 52-59.
- <sup>22</sup> Danielle M. Carlock and Anali Maughan Perry, "Exploring Faculty Experiences with E-books: A Focus Group", *Library Hi Tech* 26, no. 2 (2008): 244-254, accessed April 11, 2012, doi: 10.1108/07378830810880342.
- <sup>23</sup> Jody Bales Foote and Karen Rupp-Serrano, "Exploring E-book Usage Among Faculty and Graduate Students in the Geosciences: Results of a Small Survey and Focus Group Approach", *Science & Technology Libraries* 29, no. 3, (2010): 216-234, accessed April 11, 2012, doi: 10.1080/0194262X.2010.497716.
- <sup>24</sup> Rainie, Zickuhr, Purcell, Madden, and Brenner, "The Rise of E-Reading."
- <sup>25</sup> Among others, see for example: Robert L. Fowler and Anne S. Barker, "Effectiveness of highlighting for retention of text material," *Journal of Applied Psychology* 59, no. 3 (1974): 358-364, accessed May 17, 2012, doi: 10.1037/h0036750; Thomas H. Anderson and Bonnie B. Armbruster, "Studying," in *Handbook of Reading Research*, ed. P. David Pearson, (New York: Longman, 1984), 657-679; Sherrie L. Nist and Mark C. Hoglebe, "The role of underlining and annotating in remembering textual information," *Reading Research and Instruction* 27, no. 1 (1987): 12-25; Merlin C. Wittrock, "Generative processes of comprehension," *Educational Psychologist* 24, no. 4, (1989): 345-376, accessed May 17, 2012.
- <sup>26</sup> "EBL Ebooks Can Now be Downloaded to the Sony Reader [October 29<sup>th</sup>, 2008]," Ebook Library Blog, accessed May 21, 2012, <http://blog.ebilib.com/?p=5>.