Offline E-book Access: ebrary Survey of Librarians

Allen McKiel, Ph.D., Dean of Library Services, Western Oregon University

The March of 2011, ebrary initiated survey of librarians is largely about changing technologies and expectations for access to e-books. Most of the first fourteen questions (with the exception of 7 and 12) collect demographic or vendor specific information. Approximately 80% of the 1,029 respondents were from academic libraries with only 7% from public and the remaining 13% from corporate, government, school or other.

Offline and Tethered Access

The first four topical questions (7, 12, 15, and 16) address basic positions with respect to tethered and offline access to e-books for both mobile and stationary devices. Tethered access refers to e-book use provided by an ongoing interaction over the Internet with vendor software to view an e-book that is resident in the vendor's database. Offline access uses software and a copy of the e-book that is resident on the user's computer. The responses show majority interest in the library providing access to both tethered and offline reading with a very clear preference for providing mobile offline reading.

The first topical question (7) asked the respondents if their library offers offline reading options. Responses were divided about equally with 32% responding that they do, 35% that they do not, and 33% that they were considering it. The second question (12) asked if the library provides tethered options for mobile devices like the iPad. Only 19% responded yes, 48% said no, and 33% were considering it. The third question (15) asked if tethered mobile access eliminated the need for offline mobile access. A resounding 95% answered no. The fourth question (16) asked which was more critical to patrons—tethered or offline reading. Only 7% responded with tethered, while 37% answered offline, and 56% said they were equally critical. Librarians in this survey clearly reflect a view of the critical nature of portability to the future of e-books.

The clear preference for offline mobile access has its roots in the experience of reading a print book. In order for the experience of reading an e-book to be as satisfying as reading a print book it must at least provide similar ease of use. The two simplest expectations are portability and useability. You need to be able to hold it comfortably, turn the page, and find things in the book. Tablets are getting better and better at providing the basics for the reading experience. They also provide the additional benefit of providing access to a portable library.

Offline access also provides benefits for the workstation experience. The ease of use for working with the contents of books is not as sensitive to portability but it is sensitive to responsiveness. When doing research with the material in the book, it is important to have nimble local control of the text. It needs to be quickly accessible to all of the online tools used in organizing, writing, and communicating. It needs to be as responsive as turning a page. Delays in any of the interactions are generally not gracefully tolerated.

The availability of reading devices for e-books begs the usage question. Do people with devices capable of reading e-books use them for that purpose in numbers that match reading print books? A survey done by the National Endowment for the Arts in 2008 found the rate of reading books in the general population to be at 50% (www.nea.gov/research/Readingonrise.pdf). A recent survey by Google of tablet use found 46% of tablet users indicating that they used them to read e-books (http://www.readwriteweb.com/archives/google_survey_reveals_how_we_use_our_ipads.php). The survey also found that 78% use tablets to search for information and 61% use them for reading the news.

E-book Reading Devices and Functionality

Questions 17 and 18 collected impressions of devices used to read e-books. Question 17 rated the devices and 18 examined particular functionality. About a third of the respondents answered question 17, which rated interest in devices as high, medium, or low. The rating captures librarians' views of preferable functionality like ease of use for both offline and tethered access. It is also likely a measure of librarians' experience of popularity. They must work with

the devices that patrons have. Apple tablets dominate the market at about 75%. The recently released Amazon Fire at under $200 takes aim at that dominance and a plethora of new tablets are coming into the market so the next year may see some shifting in what librarians see in the library.

As a reminder for clarity, tethered access in the context of this survey means that access to the e-book is de-pendent on (tethered to) the vendor software and database for access. It is not a reference to a hardwire connection to the Internet. The iPad and Windows workstations were ranked the top two in both offline and tethered devices but they reversed positions with respect to tethered or offline access. iPad took the top slot for offline access and Windows workstations came in first for tethered access. The iPhone and Mac OS X devices were in third and fourth positions for both offline and tethered access and also swapped places with the iPhone in 3rd place for offline access and 4th place for tethered access.

For offline access, the middle rung of device rankings included the Kindle, Android devices, and the Nook. They ranked closely together in that order. The bottom rung of device vote getters included the Sony Reader, Blackberry, Linux workstation, and Kobo in that order.

For the tethered devices, the Android phone was fifth. The Kindle and Android tablets were close together at sixth and seventh place. The Nook, Blackberry, Sony Reader, Linux and Kobo devices were the stragglers in that order.

Offline	Ranking	Tethered	Ranking
Apple iPad	230	Desktop/Laptop - Windows	145
Desktop/Laptop - Windows	222	Apple iPad	130
Apple iPhone	203	Desktop/Laptop - Mac OS X	114
Desktop/Laptop - Mac OS X	170	Apple iPhone	108
Amazon Kindle	161	Android phones	85
Android phones	158	Amazon Kindle	77
Android tablets	144	Android tablets	70
Barnes & Noble Nook	127	Barnes & Noble Nook	50
Sony Reader	108	RIM Blackberry	48
RIM Blackberry	99	Sony Reader	45
Desktop/Laptop - Linux	56	Desktop/Laptop - Linux	42
Borders Kobo	54	Borders Kobo	20
Other	21	Other	8

Functionality
Question 18 ranks features and functionality on a scale of 1 to 10 for both offline and tethered access.

The features rated 'most important' to offline and tethered access ranked in the following order:

Offline	Tethered
Search within title (116 votes)	Search within title (97 votes)
Select page font/size (101)	Print (77)
TOC navigation (87)	Select page font/size (72)
Print (77)	TOC navigation (67)
Annotations (64)	Copy (57)
Copy (62)	Annotations (54)
Bookshelves (43)	Bookshelves (43)
InfoTools (17)	InfoTools (17)

'Search within title' was the top ranked feature for both offline and tethered access. Second place for tethered access was 'Print' instead of 'Select page font/size' as it was for offline. 'Print' drops to fourth for offline access where there is less need to print because you have a copy resident. 'Copy' and 'Annotations' swap places with copying being more important for tethered access.

Offline Mobile Access: Loan Period and Checkout
Questions 19 through 21 discuss mobile access to e-books in the context of loan period and checkout—the length of loan period, how it should be set, and how many items at once. Over half of the participants selected a check-out period of two or three weeks (2 wks – 29%; 3 wks – 24%). Nearly 20% preferred a month and 18% felt one week was sufficient.

With respect to how the loan period would be set, only 2% trusted the library patron to set their own time, 42% preferred that the library set the loan limits, and 27% felt the library should provide options for the patrons to select. For 29% of the respondents, a single loan period was preferred.

Concerning the number of items that a patron could have at one time, 44% of the respondents thought the library should allow 2 to 5 items, 25% said 6 to 10, and 22% preferred unlimited. The 22% who posit an unlimited checkout are an example of how some librarians have expectations for electronic distribution to provide access expanded beyond that available in a model that mimics print distribution—the single-user model. The preference for unlimited access reflects a desire for a broader discussion of the potential of electronic distribution to dramatically improve access. The limitations associated with concerns over digital rights management for the copyright holder and the associated return on investment limit the more expansive capacities of the Internet. From the perspective of the librarians' objectives, it limits a broader discussion of the potential to fulfill a primary objective for the management of resources on the part of the library—optimizing access. Besides the 22% who wanted unlimited checkout, nearly 28% of the comments associated with questions 19 through 21concerned the inappropriate or unnecessary nature of the restrictions of the model.

Most of the responses in the comments associated with the questions demonstrate acceptance of using the single-user conceptual framework of loan period for discussing e-books. On the positive side, single-

user is a conceptual framework familiar to librarians because it mimics print distribution. It provides an orderly way to discuss options for mobile access to e-book collections that accommodates both library and publisher perspectives as the exigencies of e-book distribution evolve in the marketplace.

Priorities for Checkout Functions and Features Question 22 provided for the ranking of seven check-out features and functionality on a scale of 1 to 5. Each feature could be given any rank. They could all be ranked most or least important or anywhere between. Of the 395 individuals who responded to the question, just over half (219) ranked 'check out directly to mobile devices' with a ranking of most important (5). Given the common awareness of proliferating mobile access to e-books over the Internet, this is not surprising. Librarians are on the front lines of dealing with the limitations of software that requires downloading to a PC and then transferring to a mobile device.

'Check out multiple items' received the second highest number (187) of most important rankings. Coming from a long and common tradition of multiple checkouts, the thought of limiting patrons to one check-out item at a time in electronic format is a non-starter for many. It violates expectations for both print and electronic distribution logic.

Three features cluster together with a little over a third of the respondents giving them a 5: 'check in before loan period expires' (123); 'check out to desktop/laptop from which patrons sync to mobile devices' (115); and 'sync on multiple devices during loan period' (112).

'Check in before loan expires' makes sense in the context of a distribution model that limits items to one patron at a time. Others may be waiting to check out the e-book. 'Check out to desktop/laptop from which patrons sync to mobile devices' is a mechanism required for use by some reading devices. It is therefore important albeit less desirable than direct check out to the mobile device, which ranked first as a desirable feature.

'Sync on multiple devices' makes sense in the context of the variety of access devices in the marketplace. Librarians expect vendors and publishers to

accommodate anything that a patron would expect to read an e-book on. This issue needs a standard software solution, which could take a while. EPUB 3 provides a base for development, but we are a long way (5-10 years?) from standard implementation across devices, vendors, and publishers. Both publishers and librarians must deal with the expense in time and resources of addressing the associated complexities. This issue complicates the lives of librarians, vendors, and publishers; and it makes resolution of their conflicting priorities for distribution even more complicated.

The two issues least given a 5 by librarians were 'Specify different loan period for each item' with 74 and 'Check out chapters' with 66. Since loan periods are necessary in the context of a single-user model, then the flexibility of specifying different loan periods would help to optimize access. 'Check out chapters' I think is a sleeper issue. It may have received a low number because it is not something that can be done with print books. Checking out chapters is not an option for print book distribution and therefore librarians do not have experience that sets expectations for it in e-books.

As a broader issue for e-book distribution, chapter access is important in my view because it resembles journal article access. It is the primary unit of publication access in online research for most researchers. Researchers have established patterns for searching, reading, working with, printing, organizing, and saving e-journal articles. E-book access in a manner similar to journal articles would be natural to their current working patterns. Particularly helpful would be chapter level abstracts that would provide for similar searching terminology and strategies.

Researchers are also used to an open environment for e-journal access. In the context of electronic journal databases, researchers are free to print, copy, and download without restriction. Digital rights management is not protected through artificial restrictions on use. Revenue associated with distribution is provided for value added services— most notably service to researchers for search and access. This opens distribution models to revenue based in individual title, subject area, and mega database subscription as well as pay-per-view. Librarians can expand overall access to resources for

their students and faculties by optimizing the least expensive option though analysis of usage. Publishers can optimize revenue by extending access through a variety of venues, which should encourage usage. Increased volume of usage should produce economies of scale and suit publishers, vendors, researchers, librarians as well as the intent of copyright law—increased creativity. The e-journal distribution model has already shaped the expectations of librarians and researchers. Through these expectations, the 'single-user' model appears unnecessarily restrictive and counterproductive.

Paying for E-books
Question 23 solicits librarian preferences for how to pay for the ability to check out items. The ranking is by the percentage of respondents who selected the option. The question directed respondents to select all that applied.

The large majority of the respondents preferred check out fees to be incorporated into the perpetual access hosting fee (72.4%). 'Different pricing for databases—with and without downloads' received a vote from 26% of the respondents. Three options each received votes from about 20% of the respondents—'Pre-paying for a specific number of downloads', 'Paying for each download as it occurs', and 'Different charges for basic and enhanced functionality in downloaded titles'.

The majority selected the terminology that most closely resembles print distribution—perpetual access that permits unrestricted checkout. Many of the comments also followed print distribution logic. Most of the 43 comments said there should be no check out charges. Libraries are not charged for every circulation of a print book. One comment reads: "Shouldn't have to pay anything additional. We don't pay extra to be able to check a physical book out to a user." Another comment reads: "If we've already purchased the item for viewing why would we have to pay for it again to download? Bad model."

About 20%, the same amount that wanted unlimited checkout in question 19, selected payment options that are not available in print—paying for downloads in advance or as they occur. This does not resonate with the majority of librarians. It does not provide ownership or build a collection in the manner experienced in print. This is essentially pay-per-view, which I expect over time will prove to be a flexible option for expanding access to e-books for faculty and students. It has been my experience in journal article access. Adding purchase to the model after a number of uses is a patron-driven-access alternative, which is currently gaining acceptance as a compromise between access and purchase models.

Single-User Access
Question 24 examines preferences for handling multiple patron access to a title when it is purchased under a single-user license. The ranking is by the percentage of respondents who selected the option. The question directed respondents to select all that applied.

A slim majority of the respondents preferred jumping immediately to an unlimited multi-user license for the title (51.8%) rather than purchasing additional single-user licenses (28.5%). For 28.3% the way to deal with the single-user model was 'Not purchase titles that are only available under single-user license'. A 'Shorter loan period for single-user titles' was selected by 31.5%. Slightly over 30% would use a 'Short-term loan when additional patrons attempt to access the same title'. Only 12.8% selected 'Non-linear lending model' (purchase of access time which can be used simultaneously). For the 37.8% that selected 'Queue system. How would it work', the large majority of the 151 comments that addressed how it would work recommended some variation of notification to the next in line (most said email).

Question 25 asked for the maximum number of single-user licenses that the librarian would purchase. Of the 138 respondents the average number for the maximum was 4 (4.34). Thirty-two of the comments indicated that a maximum would depend upon demand for the particular title. Twelve commented that it depended on the price. Eight said that they would not participate in a single-user model. Question 26 asked for preferences on structuring flexibility into a single-user, mobile access check-out system by providing multiple, short-term loans. The question asks for the respondents to provide two numerical responses in the comments field—their preference for the maximum number of loans and the number of days per loan. Four respondents ex-

pressed concern for the ambiguity of the question. One wrote, "Do you mean the number of titles one person could check out or the number of times they could check a specific title? Question unclear." Another person wrote, "not sure I understand the question, do you mean the number of renewals allowed by one patron consecutively?" The ambiguity shows up in trying to interpret the responses.

Of the 195 responses concerning the number of days per loan, the average was 8 (7.78). Of the 168 numerical responses concerning the maximum number of loans allowed, the average response was 5 (4.96). Seventeen responses to the maximum number allowed were 10 or over with an average of 14 (13.8) for the responses over ten. Respondents answering over ten were probably interpreting the question to mean the number of titles that one person could check out at once. There were only two responses over 5 and under 10—both were 6, which leads to the likelihood that those under 10 were addressing renewals because ten and over is not unreasonable for the number of books that an average library might allow to be checked out by one patron at one time. A response of six or less would be a low limit for the number of books to be checked out at a time and therefore is likely associated with the number of renewals. If those over 10 are not counted, the average response was 4 (3.89). Thirteen of the comments said they preferred that unlimited loans be allowed.

Additional Comments

The final question called for additional comments on anything. It gathered 115 comments from a word to a paragraph in length. The two topics that garnered the most comments were the imperative nature of offline mobile access with 31 comments and the undesirability of single-user access with 20.

Offline Mobile Access

Since offline mobile access was the focus of the survey, it is reasonable that it would be the primary topic in the open comments. Most of the comments addressed the imperative and immediate nature of the need for offline, mobile reading. The following are representative:

I don't know the solution to making this work. But I don't think an investment in ebrary books

that users cannot download and use offline are worth investing in.

Students expect and demand ability to print, download, and use mobile devices.

Currently I buy 95% of all my e-titles (which are over 75% of my total budget) through your platform. If you wish to charge extra for the ability to download and e-checkout I will switch platforms. This should be a standard feature for all e-books.

Offline reading is the future. We need to have the functionality for the titles that we buy.

Allowing checkouts to mobile devices is our top priority at this library.

There were two comments that were dissenting views concerning the need for offline, mobile access to e-books.

It's far more important to keep the doors open and the lights on than to futz around with these devices. And I am a tech writer!

Our library has offline options—Books :)

The dissenting comments bring up for me the underlying issues of the transition to e-distribution. The first comment speaks to the heart of the struggle of the publishing and library communities over access—their survival. The library and publishing worlds emerged over the production and distribution of the physical book. The question that is being resolved over discussions of the technology replacing the print book is whether, and in what form, publishers and libraries might be integral to the production and distribution of e-books. As we approach the inevitable demise of paper as the center of information distribution, the viability and form of both publishers and libraries struggles for clarity and assurance. This survey is just one of a myriad steps moving us toward that clarity. The viability of both libraries and publishers will evolve in their responses to the demands and expectations set within the new technologies of the Internet.

The second comment speaks in a similar manner to the heart of this survey. It frames expectations for

the functionality of an e-book. An e-book must at least provide the fundamental satisfactions of the print book within the expectations framed by the new medium of the Internet. These include accessibility, portability, readability and usability.

Nine comments concerning downloading and offline mobile access addressed functionality of e-readers. They contained a variety of suggestions for implementation of access or preferences for the technologies used. The two main issues were device independence and platform usability. There were specific references in some comments to the need to move toward standards like HTML5 and EPUB, which offer the potential for seamless access from all mobile devices. The following quotes are examples: "Ideally, content should be easily downloadable on many types of platforms." "An HTML5 solution rather than an app would be most beneficial to all." "[I]t seems that downloadable epubs are the way to go."

No Single User
There were 30 comments related to the single-user marketing model of which 10 addressed loan period under a single-user model. Of the 20 specifically addressing the merits of the single-user model, there were no remarks praising it. The comments ranged from somewhat negative to hostile. Visceral reactions to single-user distribution models in my experience are not uncommon in librarian conversations. The following are a sampling from the comments:

> *Single user license is a joke for e-books and the multi-user pricing is needlessly expensive.*

> *No single-user licenses! Down with them! This is why we HATE [vendor name].*
> *One of the major advantages of the electronic book is the ability to share it. I strongly oppose models where one person has access and everybody else is locked out. I also want the ability to loan these materials on interlibrary loan.*

> *Patrons don't understand (and often get angry) when told that an e-book is "out" and they cannot have access. The model wherein multiple checkouts are allowed would be BEST.*

> *It'd be most helpful if the single-user licenses went away as a business model.*

Single-user distribution violates the logic of access experienced on the Internet. The restrictions associated with it belong to the logic of physical object distribution. The application of print book distribution logic to the Internet confuses the underlying issues of the transition to electronic distribution. The comment requiring "the ability to loan these materials on interlibrary loan" is representative of the confusion of expectations. Interlibrary loan does not make sense in the context of the Internet. Demanding it inhibits the evolution of a model that utilizes the functionality of the Internet. Access, in the context of the Internet, is not checking out and returning. Library circulation in the context of the Internet is authentication for access. One library cannot authenticate for another unless they also assume the costs associated with it. The costs to libraries of processing interlibrary loan for print materials and its cost in time and convenience to patrons established limits to its impact on return on investment for publishers. The limits that must be imposed on the loaning of electronic materials require the artificial imposition of limits or costs since those associated with physically processing and relocating materials are absent in electronic realms.

Publishers and vendors get caught between the contrary expectations of librarians who want the best of both print and Internet distribution systems embodied in an electronic system. They want to loan the book as they would the physical copy. But they do not want to pay for the comparable cost associated with processing and delivering an interlibrary loan. Expectations for models of distribution get caught between expectations framed from the world of print and overlaid on the world of the Internet. Publishers' expectations for return on investment via print and electronic distribution are similarly confused because they are based to a degree on the same market for a title and are interdependent.

The expectations framed in the print world do need to be addressed; but, not with solutions that violate expectations in the context of e-distribution. Interlibrary loan addresses an underlying concern for comprehensiveness and equity of access for re-

searchers. This needs an expression in the formulation of electronic models of distribution—a model responsive to both cooperative and market forces, as print-based interlibrary loan is. A similar expression needs to take advantage of the flexibility afforded by the Internet. There are interesting models already being implemented, for instance, the marriage of the patron-driven access purchasing model within a cooperative of institutions. Cooperative purchasing affords access to a significant e-book database of titles that are open for use and purchase via patron use. This uses cooperative purchasing as a replacement for interlibrary loan in a model that can be fine-tuned to work to everyone's advantage—patrons, libraries, publishers, and vendors. More elegant models will likely evolve with the opportunities and challenges afforded by the inexorable evolution of the Internet. Those opportunities include the potential to vastly improve the breadth, precision, efficiency, and equality of access on the part of researchers to the information product of higher education.