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Ereaders in academic libraries – a literature review

Tracy Tees

This paper has been double-blind peer reviewed to meet the Department of Innovation, Industry, Science and Research (DIISR) HERDC requirements.

This literature review describes the experiences of universities in their use of ereaders as textbook replacements and of academic libraries in their lending of ereaders. Information gained from this review will inform Southern Cross University (SCU) Library's forthcoming Ereader Project, which will trial the lending of ereaders as leisure reading devices. The trial will help to gain insight to borrowers' ereader experiences in the Australian academic library context.

Implications for best practice:

- It is important to review the literature in order to learn from other libraries' implementation of similar projects, and to gain ideas for your own project.
- The literature indicates that ereader technology is not yet suitable for university students to use as a textbook replacement, and that currently the most appropriate use for ereaders is as a fiction reading device.
- The library's collection development policy provides the framework for decision-making about the provision of fiction in an academic library.
- Regarding project implementation it is important to begin your ethics application preparation early in order to keep to your project timetable.
- Consider the implications of when your trial will start and whether that will affect promotion or implementation strategies, for example in an academic environment this includes semester start and finish times.
- Project trials that deal with new technology can affect all library sections. Communication within the project team and with affected staff is essential to anticipate problems and to gain many perspectives on possible implementation and management issues.

Introduction

Since the 1990s ereaders have attracted occasional interest in the media, with the customary 'end of the book' headlines. The early devices were not embraced by the reading public. In 2007 the release of the Amazon Kindle, with e-ink technology that gave a paper-like reading experience, began to make a significant impact. By 2010, the release of Kindle 2, subsequent price drop, the availability of other ereader devices and publisher content agreements have meant that ebook sales are now 5% of the

American book market (Holt 2010). The third generation of Kindle, the Graphite, lighter and with improved screen contrast, is due for release in August 2010. Media interest in ereaders has also intensified since the launch of the Apple iPad which offers ereading functionality in addition to its multimedia capabilities.

Academic libraries have long been involved in digital forms of publishing, and online academic ebook package subscriptions or purchases are already a major part of university library collections. Platforms such as Ebook Library (EBL) and Ebrary provide browser-like interfaces to ebooks for registered patrons with an active internet connection. Some platforms (including EBL and OverDrive) utilise digital rights management (DRM) to allow time-limited ebook loans to ereader devices such as the Sony Reader or Kobo Ereader. Online bookstores Amazon and Borders allow purchase of individual titles that can be loaded on up to six registered devices (Borders 2010; Amazon.com 2010). With an increasing range of devices, titles and purchasing models, is it time for academic libraries to include ereader devices in their collections?

Textbooks as ebooks

The largest study into ebook textbooks is the National E-books Observatory Project funded by JISC (JISC Collections 2009). For a year, 26 online textbooks across four subject areas were made available to 127 United Kingdom universities. Over 50,000 participants were observed to see how they used the ebooks. The study reported that for users, the convenience of ebooks was compromised by poor usability (JISC Collections 2009, 22).

Similarly, an Australian study (Borchert et al. 2009) of over 1,900 students and academics at two Queensland Universities found that 60% of respondents were appreciative of ebooks offered through lending platforms. However, the study also found the main barrier to ebook acceptance was the difficulty of reading from the screen, with this as a factor for 48% of students and 63% of academics.

A smaller cohort study of 26 nursing students from 2006 to 2008 at La Trobe University also found the difficulty of reading on screen to be one of the major disadvantages, with 40% of students finding it an obstacle (Perkins and Johanson 2009, 8). The arrival of ereaders raised the possibility of an alternative way of viewing ebook textbooks, not restricted to a computer screen, but giving a mobile book-like experience for students.

Ereaders as textbook replacements

The increasing availability of ebook textbooks, advances in ereader technology and the potential for reduced printing costs, heralded trials of ereaders as textbook replacements at several universities in 2008.

Early that year, a proposal by Penn State University Libraries was accepted by Sony to enable the commencement of the Penn State Sony Reader Pilot utilising 100 Sony ereaders for English and library studies students (Behler 2009). Technical difficulties

had to be surmounted due to the consumer licensing model that limits sharing of ebooks between one computer and five ereader devices (Behler 2009, 57). Students with non-humanities majors felt that ereaders would not be usable in the hard sciences, as those texts rely on colour and diagrams. Students also complained about the inability to make in-text notes and to navigate pages easily. (Behler 2009, 58).

Graphic display and usability were also issues with an ereader trial of HP iPaqs and a Mio DigiWalker at the Chinese University of Hong Kong (Lam et al. 2009). The ability to write notes and to highlight text were suggested as improvements that should be made for academic reading.

In autumn of 2008, Northwest Missouri State University distributed 200 Sony PRS-505 ereaders as phase one of a pilot study into e-textbooks. Focus group sessions helped determine that the lack of search, annotation, colour and in-text linking meant that the devices were not ready for full deployment as textbook replacements (Rickman et al. 2009). The trial then continued in spring 2009 with devices replaced by laptop computers as the delivery mechanism. In 2009 their trials have continued using the Sony PRS-700, which features a touch screen and improved navigation (Butler 2009; Young 2009).

Following discussions with Amazon in autumn 2008, Reed College was one of seven institutions chosen to trial the larger screen version of the Amazon Kindle, the Kindle DX (Marmarelli and Ringle 2009). The trial began the following year. Students liked the form, weight, text legibility and wireless connectivity. However, there was still dissatisfaction with readability of PDF documents and lack of colour for graphs and images. Delivery of journal articles in PDF form was also problematic, with Amazon reluctant to store copyrighted material on their servers for distribution via their Whispernet system. This meant that students needed to connect via USB to the college's content management system to download the articles. A repeated theme was the desire to be able to make margin notes easily and highlight parts of the text, the lack of which could impact comprehension and academic results. Their conclusion was that the DX was not able to meet academic needs (Marmarelli and Ringle 2009).

The six other institutions involved in the trial also started out with optimism and in September of 2009 it was reported that at Arizona State University student reaction was mostly positive, although citing of particular passages was difficult with Amazon using a 'location' to show progress instead of page numbers (Young 2009). By the end of September negative reports started appearing in the media (Wall Street Journal 2009). In 2010 the overall results show an overwhelmingly negative reaction, particularly with the file management system, difficulty in highlighting and making notes, and slow navigation (Damast 2010). At Virginia University a mid-term survey of the students found that 75-80% would not recommend the DX to another student for study purposes although 90-95% would recommend it to another student as a personal reading device (UVA Today 2010). Princeton University found that the annotation tools were the most complained about feature (2010, 4) and that 'superb annotation tools are critical for the success of an e-reader used in higher education' (2010, 5). The major benefit was a

reduction in printing by the Kindle users, printing just over half the amount of the control group students (2010, 1).

Ereaders not ready for the classroom

So far, all trials have indicated that the technology of ereaders does not suit how students need to work with their study material. In particular, a recurring theme is the need to be able to make notations and to easily highlight text. Texts that utilise graphs and colour images are also not ideal for ereaders. The colour and graphics abilities of the iPad are therefore attracting universities' interest. Currently several American colleges and universities have iPad trials planned or underway (Carter 2010). The largest, at Oklahoma State University, will trial 125 iPads over five courses, tracking any cost savings and focussing on using applications to problem solve in the classroom. At Houston Community College, 25 students are using iPads in the 2010 summer semester and Washington College plans to have 14 iPads to trial at the start of the new academic year.

For now, universities and retailers are focussing on electronic textbook delivery in universities via the computer screen or applications, rather than a dedicated device. A recent agreement between Barnes & Noble and Blackboard will allow students to purchase and download study material through the Blackboard platform, and integrate with a software application called NookStudy (Barnes & Noble 2010). A Nook ereader is not required, although presumably the name in the title and any on-site advertising would help Barnes & Noble sell their devices. Another online application is CourseSmart, with online textbooks from major publishers, including Pearson and McGraw-Hill. Selling subscriptions to online textbooks, they also offer applications for iPhone and iPad (CourseSmart 2010).

Ereaders as library loans

Generally, library lending has been a more successful use of ereaders in an academic environment. The devices are suited to fiction reading and have proved popular at each of the university trial sites.

In 2008 a qualitative study of 36 faculty and library staff undertaken at Texas A&M Libraries found that use of the Kindle in an academic setting was limited by 'content availability and licensing issues, graphic display capabilities, organizational issues, and its prohibitive cost' (Clark et al. 2008, 118). Following this study, six Kindles were then made available for loan to the university community, using a user-driven title selection model (Clark 2009). The demand for the Kindles was high and the number on circulation was increased to 12 and then 18, and the loan period reduced to one week. A website system was used to request titles and reserve the Kindle. The success of the programme surprised the researchers, and they concluded that the Kindle was 'a technologically sophisticated means for offering popular reading content for a variety of users' (Clark 2009, 149). The lending programme is still active in 2010.

In addition to the Penn State University Libraries' course trial described earlier, a library lending programme of five of the Sony ereaders was conducted. Initially each device had its own themed content, but user feedback indicated that variety of choice was wanted, so content was consolidated into one library that was loaded onto all devices (Behler 2009, 57). An on-demand selection of titles was requested by patrons, however it was decided that training a large circulation staff and the hardware and licensing limitations would make this impractical in a large academic setting (Behler 2009, 57). They commented that Kindles, using the Whispernet system might reduce some of the administrative load, although individual Amazon accounts would still be required for every five devices.

Brigham Young University began a trial using three Kindles as a replacement for inter-library loans requests (van Dyk 2009). The requested text was purchased, placed on the Kindle with the user guide, and then when the Kindle was returned, the text removed. However, the trial was suspended over fears of legal reprisals, as Amazon would not give permission in writing for this use of the Kindles (Haddock 2009). Librarians have pointed out that the terms of Amazon's Licence Agreement, that an owner may not 'sell, rent, lease, distribute, broadcast, sublicense or otherwise assign any rights to the Digital Content' (Amazon.com 2009) do not strictly cover a loan of a Kindle and its content (Oder 2009). Other libraries running trials have received verbal agreements from Amazon representatives and an Amazon spokesperson has said 'we don't talk about our enforcement actions', interpreted as meaning Amazon does not pursue enforcement with its associated negative public reactions (Oder 2009).

Oregon State University's Valley Library originally made six Kindles available for loan for pleasure reading in November 2009 (Carter 2010). The waiting list grew to 189 borrowers, and the loan period was reduced to two weeks, and 12 more Kindles were purchased. They utilise a web page booking system, and students can choose up to $20 of titles to be loaded onto the ereader – these are paid for by the university and retained as part of the ebook collection. Valley Library has found it to be an affordable way of offering a popular reading collection (Hoag 2010).

Australian university library trials

Australian trials, so far, seem limited to those focusing on technical and usability testing by library staff, rather than lending schemes of devices. However, Queensland University of Technology has indicated in their abstract for a presentation to be held at the ALIA Information Online Conference 2011, that student feedback will inform decisions on whether to purchase ereaders for lending (Australian Library and Information Association 2010). They have developed an evaluation matrix, including criteria of functionality and current ebook collection compatibility, to aid ereader selection and acquisition. At RMIT Library, several types of ereaders were compared by six librarians, looking at setup and content issues and their experiences were reported on the project's blog site (RMIT Library 2008). A similar staff trial at Melbourne University compared the Kindle with the Iliad ereader and their blog post indicated the possibility of future library trials for the Kindle (Lindsay and Sergovich 2010). The RMIT

and Melbourne University trials highlighted several technical issues such as content transfer, text notation problems and PDF reading issues consistent with the American university trials.

Ereaders as leisure reading devices at SCU Library

SCU Library's mission as stated in its Collection Development Policy is to 'foster quality learning, teaching and research for the university and its communities through innovative and effective access to resources and excellence in service' (2003, 2).

With innovative access in mind, SCU Library believes that it is important to evaluate new technologies that improve students' experiences of the university environment. The Library purchased three Kindle devices and three Kobo ereaders in late 2009/early 2010. Library staff were encouraged to try the devices, and interested staff invited to form an ereader interest group in order to decide upon the best use for the ereaders.

The literature indicates that ereader technology is not yet suitable for university students to use as a textbook replacement. Currently the most appropriate use for ereaders is as a fiction reading device (which is, after all, what they were designed for). In an academic environment this means that they could be used for recreational reading, or possibly in courses that study popular or classic fiction.

For SCU, the current lack of Australian contemporary and youth fiction in ebook format (other than bestseller titles) meant that the ereaders were not suitable for use in supporting the Contemporary Writing or Education programmes. A check in June 2010 of Amazon and Borders online holdings showed that for English and literature units in the Contemporary Writing programme, only 34% and 24% respectively of set texts were available. For English and literature units in the Education programme, there were no holdings, excepting a possible use for students preparing for secondary school instruction: 44% of HSC English prescribed texts (NSW Board of Studies 2010) were available through either Amazon or Borders. Consideration was given to the use of the devices to hold course material in PDF form, however the need to zoom and pan to see the entire content was clumsy and not practical.

SCU Library, under its Collection Development Policy, has the discretion to 'provide a recreational and general interest collection' (2003, 4). The leisure reading collections at the three campuses provide over 1,500 fiction and general non-fiction titles. The collection is added to by staff suggestions, and weeded to maintain appeal and control shelf space.

Recreational reading collections can serve as a 'bridge' to the main collection, for students unaccustomed to large academic collections (Zauha 1993, 60). The University of Northern Colorado Libraries concluded that their recreational reading collection allows the university to cater for the whole individual, provides good public relations for the Library and serves as a promotion of the values of literacy (Rathe and Blankenship 2006, 82).

Concerns about staffing, budgets and physical space have often led to the minimising of leisure reading collections (Elliott and Trott 2007, 39). Costs and storage space are areas in which investigation of ereaders as alternatives would be informative. In the preliminary purchase decisions of titles for the SCU ereaders, it was found that the cost of print versions of the fifty selected titles would be $1041, the same titles totalled $596 and $607 respectively for Kindle and Kobo ebook versions. An ereader containing several hundred titles will obviously take up less physical space that the same number of titles in print form. However, current licensing agreements mean that each title can only be used on a maximum number of five ereaders. There are loss and damage risks in lending hardware, although this may become less of an issue if ereader prices continue to fall. Libraries need to assess expenditure on staff training and administration, particularly if a user-selection of titles loan model were used. There are new storage, circulation and maintenance issues, and the robustness of the devices in a lending environment would require investigation.

At Texas A&M informal interviews with ereader borrowers revealed that there was a high novelty factor, with students borrowing the Kindle for only several hours simply to explore the device (Clark 2009, 148). Providing students who otherwise could not afford to experience such devices is important in a regional university such as SCU, with a significant proportion of students from a low socio-economic background.

The SCU Library Ereader Project will trial the loan of the six devices (one Kindle and one Kobo at each campus) over a period of six months. An online questionnaire, a tally of enquiries, data from the circulation system and the ereaders, interviews with circulation staff and an online poll will be used to evaluate the trial, specifically to:

- discover SCU patrons' thoughts about the ereader lending programme
- discover which genres and titles are the most/least popular with SCU ereader borrowers
- discover the most effective method of promoting the device
- examine relationships between age/gender/reading habits and liking the ereader device
- determine if an ereader lending programme is manageable and cost-effective

This last point will be crucial in deciding whether the ereader lending programme continues beyond the trial period. A post-trial review will need to look at cost comparisons with the print leisure reading collection and the impact on library staff time in administering the programme. In assessing these factors, ongoing consultation and end of trial interviews with library staff will be vital, looking at their perspectives on title acquisition, circulation challenges and technical issues. Analysis and evaluation of the trial will not only be beneficial for Library decision making, but can also inform any device trials delivering academic content that may be held at SCU in the future.

Whilst the trial is generally expected to reflect the popularity and results of the trials held in American university libraries, it is distinguished by the desire to gain insight to

borrowers' ereader experiences, its focus on leisure reading rather than academic texts, the Australian university context, and the opportunity to analyse, assess and share the ereader loan programme implementation findings. It is vital for academic libraries to assess real world implementation experiences in order to utilise university budgets effectively, make informed purchasing decisions and stay current with technology developments in information resources.

References

Amazon.com. Amazon Kindle: License agreement and terms of use. http://www.amazon.com/gp/help/customer/display.html?ie=UTF8&nodeId=200144530 (accessed July 25, 2010).

Amazon.com. Help: Transferring, downloading and sending files. Amazon. http://www.amazon.com/gp/help/customer/display.html/ref=hp_kland_faq_kshare?nodeId=200375630#multiple (accessed July 23, 2010).

Australian Library and Information Association. Presentation B21: Ebook readers: separating the hype from reality. http://www.information-online.com.au/sb_clients/iog/bin/iog_programme_2011_B21.cfm?vm_key=C121B652-1422-0982-EB8EE5914BB5D32F (accessed August 30, 2010).

Barnes & Noble. Introducing Nookstudy. http://www.barnesandnoble.com/nookstudy/ (accessed July 24, 2010).

Behler, Anne. 2009. E-readers in action. *American Libraries* 40, no. 10: 56-59.

Borchert, Martin, Alison Hunter, Debbie McDonald, and Clare Tittel. 2009. A study on student and staff awareness, acceptance and usage of e-books at two Queensland universities. Paper presented at Information Online 2009, 14th ALIA Exhibition and Conference, January 20-22, in Sydney, Australia.

Borders. Frequently asked questions. http://www.borders.com.au/ebooks-faqs/ (accessed July 21, 2010).

Butler, Declan. 2009. Technology: The textbook of the future. *Nature* 458: 568-570.

Carter, Dennis. 2010. iPad pilots launching in higher ed this fall. *eCampus News*, July 2. http://www.ecampusnews.com/technologies/ipad-pilots-launching-in-higher-ed-this-fall/ (accessed July 27, 2010).

Carter, Dennis. 2010. University library sees demand for Kindles soar: Oregon State lends Kindles to students and faculty for pleasure reading. *eCampus News*, May 1. http://www.ecampusnews.com/2010/03/01/university-library-sees-demand-for-kindles-soar (accessed July 27, 2010).

Clark, Dennis T. 2009. Lending Kindle e-book readers: first results from the Texas A&M University project. *Collection Building* 28, no. 4: 146-149.

Clark, Dennis T, Susan Goodwing, P, Todd Samuelson, and Catherine Coker. 2008. A qualitative assessment of the Kindle e-book reader: results from initial focus groups. *Performance Measurement & Metrics* 9, no. 2: 118-129.

CourseSmart. College textbook in online format made affordable. http://www.coursesmart.com/ (accessed July 29, 2010).

Damast, Alison. 2010. Ebook readers bomb on university campuses. *Business Week*, June 11. http://finance.yahoo.com/news/EBook-Readers-Bomb-on-College-bizwk-2084033239.html?x=0&.v=1&.pf=college-education&mod=pf-college-education (accessed June 17, 2010).

Elliott, Julie, and Barry Trott. 2007. Academic libraries and extracurricular reading promotion. *Reference & User Services Quarterly* 46, no. 3: 34-43.

Haddock, Marc. 2009. BYU suspends Kindle program over legal concerns. *Deseret News*, June 21. http://www.deseretnews.com/article/705310939/BYU-suspends-Kindle-program-over-legal-concerns.html (accessed 25 June 2010).

Hoag, Madeline. 2010. On-loan Kindles are a circulation success in OSU community. *The Daily Barometer*, March 10. http://media.barometer.orst.edu/media/storage/paper854/news/2010/03/10/News/OnLoan.Kindles.Are.A.Circulation.Success.In.Osu.Community-3887831.shtml (accessed July 25, 2010).

Holt, Karen. E-book sales statistics from BISG survey. Publishing Perspectives. http://publishingperspectives.com/?p=16286/ (accessed July 23, 2010).

JISC Collections. 2009. JISC national e-books observatory project: Key findings and recommendations. Final report November 2009. http://www.jiscebooksproject.org/wp-content/JISC-e-books-observatory-final-report-Nov-09.pdf (accessed July 21, 2010).

Lam, Paul, Shun Leung Lam, John Lam, and Carmel McNaught. 2009. Usability and usefulness of eBooks on PPCs: How students' opinions vary over time. *Australasian Journal of Educational Technology* 25, no. 1: 30-44.

Lindsay, Kathryn, and Loretta Sergovich. Comparing two e-book readers - Amazon Kindle 2 vs Iliad. University of Melbourne. http://blogs.unimelb.edu.au/litt/2010/01/27/comparing-two-e-book-readers-amazon-kindle-2-vs-iliad/ (accessed July 21, 2010).

Marmarelli, Trina, and Martin Ringle. 2009. The Reed College Kindle study. http://web.reed.edu/cis/about/kindle_pilot/Reed_Kindle_report.pdf (accessed July 21, 2010).

NSW Board of Studies. 2010. English stage 6. Prescriptions: Area of study electives and texts. Higher School Certificate 2009-2012.

http://www.boardofstudies.nsw.edu.au/syllabus_hsc/pdf_doc/english-prescriptions-09-12.pdf (accessed June 28, 2010).

Oder, Norman. 2009. Mixed answers to "Is it OK for a library to lend a Kindle?". *Library Journal*, April 7. http://www.libraryjournal.com/article/CA6649814.html (accessed June 25 2010).

Perkins, Iris M, and Graeme Johanson. 2009. New texts in old pedagogies: Use of electronic books by undergraduates. Paper presented at Information Online 2009, 14th ALIA Exhibition and Conference, 20-22 January, in Sydney, Australia.

Princeton University. The e-reader pilot at Princeton: Fall semester 2009. Final report (executive summary). http://www.princeton.edu/ereaderpilot/ (accessed July 21, 2010).

Rathe, Bette, and Lisa Blankenship. 2006. Recreational reading collections in academic libraries. *Collection Management* 30, no. 2: 73-85.

Rickman, Jon T, Roger Von Holzen, Paul G Klute, and Teri Tobin. 2009. A campus-wide e-textbook initiative. *Educause Quarterly* 32, no. 2.

RMIT Library. Homer's Iliad at RMIT University Library. http://libraryiliad.blogspot.com/ (accessed September 27, 2010).

Southern Cross University Library. Collection development policy. Southern Cross University. http://www.scu.edu.au/library/download.php?doc_id=2312&site_id=40 (accessed July 21, 2010).

UVA Today. Darden shares results of Kindle experiment. http://www.virginia.edu/uvatoday/newsRelease.php?id=12003 (accessed July 26, 2010).

van Dyk, Gerrit. Our Kindle ILL model. http://shapinglibraries.wordpress.com/2009/06/05/our-kindle-ill-model/ (accessed June 25, 2010).

Wall Street Journal. Amazon's Kindle DX: Not yet a hit on campus. http://blogs.wsj.com/digits/2009/09/28/amazons-kindle-dx-not-yet-a-hit-on-campus/tab/print/ (accessed July 25, 2010).

Young, Jeffrey R. 2009. 6 lessons one campus learnt about e-textbooks. *The Chronicle of Higher Education*, June 12. http://chronicle.com/article/6-Lessons-One-Campus-Learne/44440/ (accessed June 17, 2010).

Young, Jeffrey R. This could be the year of e-textbooks, if students accept them: Many titles are available but students are wary. http://chronicle.com/article/This-Could-Be-the-Year-of-D/48305/ (accessed June 17, 2010).

Zauha, JM. 1993. Recreational reading in academic browsing rooms: Resources for readers' advisory. *Collection Building* 12, no. 3-4: 57-62.

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