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What is This?

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Making e-books available through public libraries:
Some user reactions

CLIFF McKNIGHT,* JAMES DEARNLEY and ANNE MORRIS

This paper considers the results of an online questionnaire survey that collected user data on e-book collections held at Essex County Libraries over a two-year period between April 2004 and June 2006. The research was funded by the Laser Foundation,[1] and specifically considered e-book collections held on Personal Digital Assistant (PDA) devices, as well as collections viewable on Personal Computers with Internet access.[2] Questionnaire responses from 58 individuals indicated clearly that marketing of e-book collections needs serious consideration, that certain genres were popular with users (notably Science Fiction), and that the largest number of respondents were aged between 21 and 30. As we discuss, the findings of this questionnaire survey offer few insights into e-book usage that have not been reported in other research. However, what the findings do illustrate clearly is that publicity afforded to e-book and other electronic collections remains crucial. From perusal of the data, 47 of the 58 respondents found out about the e-book collections after browsing the website. Whilst this obviously indicates that the website is indeed useful, the fact that only nine respondents investigated the collections having seen publicity material tells another story.

KEYWORDS: electronic books; marketing of electronic books; public libraries

INTRODUCTION

Historians of the electronic book continue to trace its origins ever backwards in time, through Alan Kay's Dynabook in the late 1960s (Thompson, 2005) and even back to Vannevar Bush's concept of a Memex (Bush, 1945). However, from a public library perspective, the concept of an electronic book became interesting when devices such as the Rocket eBook (Garrod, 2003) became available. Devices like this, most of which were about the size of a trade paperback, allowed a title to be downloaded and read from the screen. In this form, they fitted with the traditional public library lending model – the devices could be loaned to patrons and returned in the normal way. Additionally, their capacity meant that several books could be loaned on a single device.
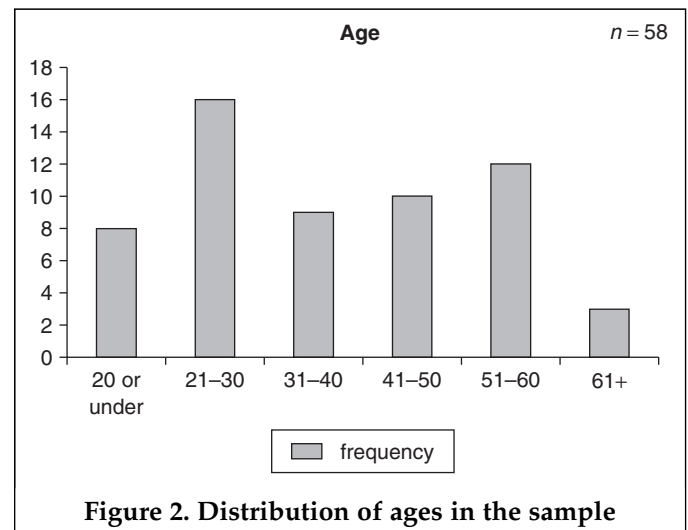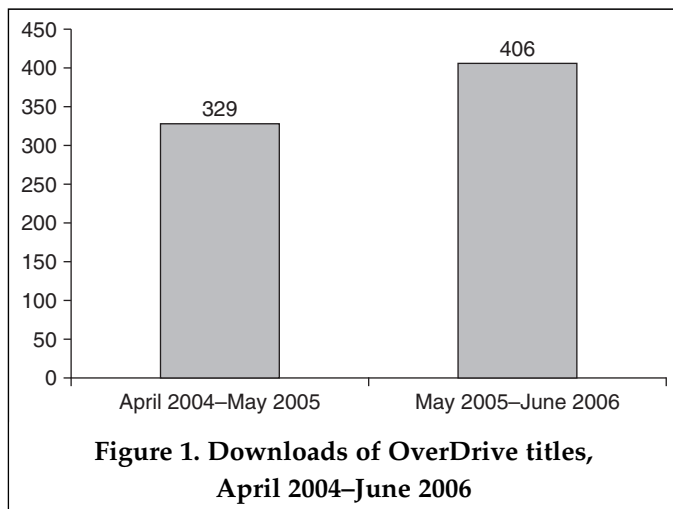
Both in the USA and the UK, a number of public libraries began to investigate the potential for the use of e-book readers. We reported earlier on such a study conducted in collaboration with a Leicestershire library (McKnight and Dearnley, 2003) and several others have reported on similar studies (Garrod, 2003; Vidana,

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Figure 1. Downloads of OverDrive titles, April 2004–June 2006

Figure 2. Distribution of ages in the sample

2003). However, for a variety of reasons, the market for such dedicated devices was not sustainable, with more popular and cheaper e-book software being developed for ordinary desk-top computers and PDAs. Collections of e-books available on PDAs fitted the existing lending model, and we reported earlier on a study of their use conducted in collaboration with Essex County Libraries (Dearnley et al., 2004).

Companies such as NetLibrary and Ebrary had originally marketed themselves to academic libraries, where fast network access had been in place for several years. As part of the 2004 study mentioned above, it was intended to compare the OverDrive and Ebrary collections as accessed remotely via the Essex County Libraries website by users from their home. However, negotiations for access to the Ebrary collection were protracted and in the event it was not possible to compare the two systems within the timeframe of the project.

The intention had been to have an online questionnaire which users of the two systems would be requested to complete and to this end the questionnaire had been designed and mounted on the website. Once the two systems were available, the decision was taken to link one questionnaire to both collections to collect user reaction data. This paper reports on the data that were collected over a 26-month period between April 2004 and June 2006.

METHOD

In order to gather more information than a simple log of number of users, an online questionnaire was designed and hosted on a server at Loughborough University,[3] with a link to it from Essex County's e-book catalogue.[4] Library users simply followed this link on the e-book catalogue homepage (reproduced in Appendix 1) and filled out the questionnaire. On submission, questionnaire returns were sent to a Project e-mail account. This method of data collection sidestepped the issue of data protection issues and

confidentiality, in that all respondents were anonymous. A targeted questionnaire survey to those who used their library accounts for reading e-books would have perhaps elicited a greater response, but was impossible to achieve due to data protection and confidentiality issues.

During the 2004–2006 period, detailed statistics were available from OverDrive on collection usage. As can be seen from Figure 1, 735 titles were downloaded. Unfortunately, usage statistics for Ebrary were not available during this period.

RESULTS

A total of 58 people completed at least part of the questionnaire in the period from April 2004 to June 2006. The nature of some of the questions was such that not everybody would be expected to answer all questions. For example, the question 'If you don't have a PDA/Pocket PC, is it something you might purchase in the future?' would not be answered by people who *do* have a PDA/Pocket PC. Also, some people chose simply not to answer some questions. For this reason, where appropriate the histograms are annotated with the number of responses.

Personal details

The sample represented a reasonable distribution of ages as Figure 2 illustrates.

The sample was also reasonably gender balanced with 33 males and 25 females taking part. Respondents were asked to enter their occupation in a write-in field. As might be expected from the distribution of ages, a wide range of occupations was reported, including Student, Housewife, School Teacher, Business Development Manager, Solicitor, Retail Manager, Web Developer, Artist, Unemployed and Retired. There was no obvious pattern in the data to suggest a particular
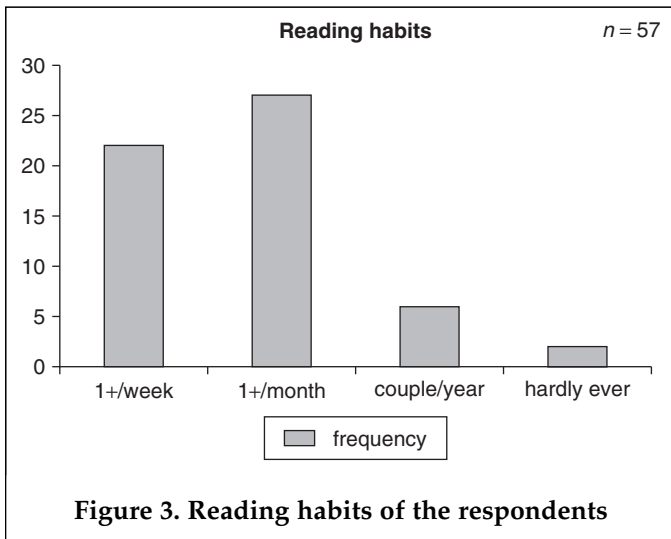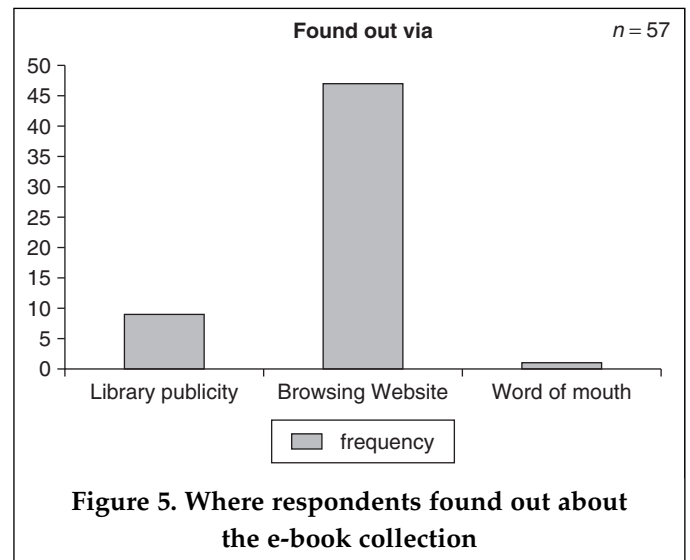
Figure 3. Reading habits of the respondents

Figure 5. Where respondents found out about the e-book collection

linkage between e-book reading and particular occupations and no single group large enough to merit further consideration.

Reading habits

Question 4 was concerned with the reading-for-pleasure habits of the respondents. As might be expected from a self-selected group of library users, the vast majority read at least one book per month, with many reading at least one book per week (see Figure 3).

When the questionnaire was designed in early 2004, the most popular genres available on the OverDrive collection were adopted. Science Fiction proved to be the most popular choice amongst Essex readers after General Fiction, but the growth of e-book titles in the murder/mystery/crime genres
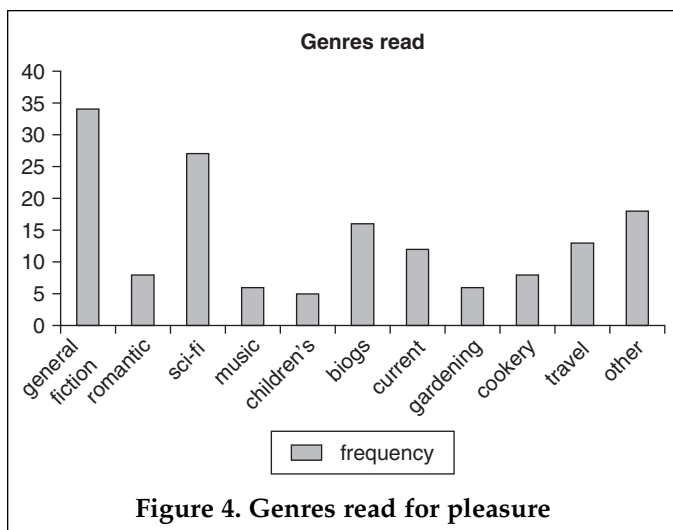
was reflected in the 'other' category. The range of 'other' e-book genres included computing, genealogy, psychology and management. Results are shown in Figure 4.

The data represented by Figure 5 suggest that the Library's publicity was not particularly effective since the vast majority of respondents discovered the e-book collection while browsing Essex's Library website.

Computer experience

The vast majority of respondents (48) had more than 5 years of experience using computers (Figure 6). However, the majority (36) did not own a PDA or Pocket PC (Figure 7).

Those who did own such devices (22) used them for a variety of tasks including calendar, organizer, address book and music, with some already using the devices to
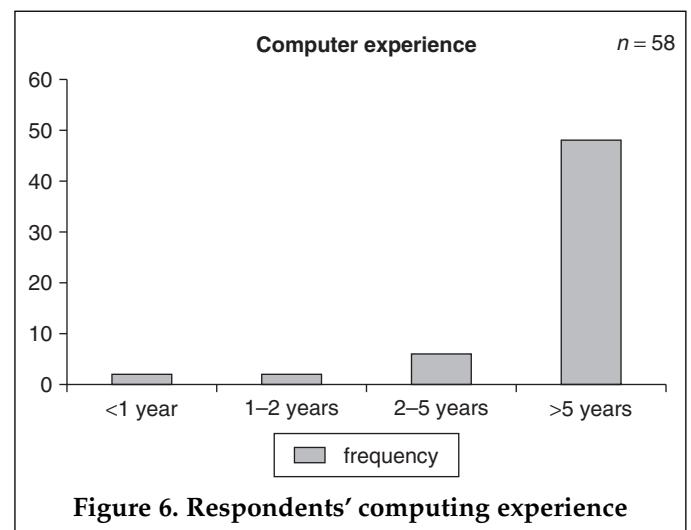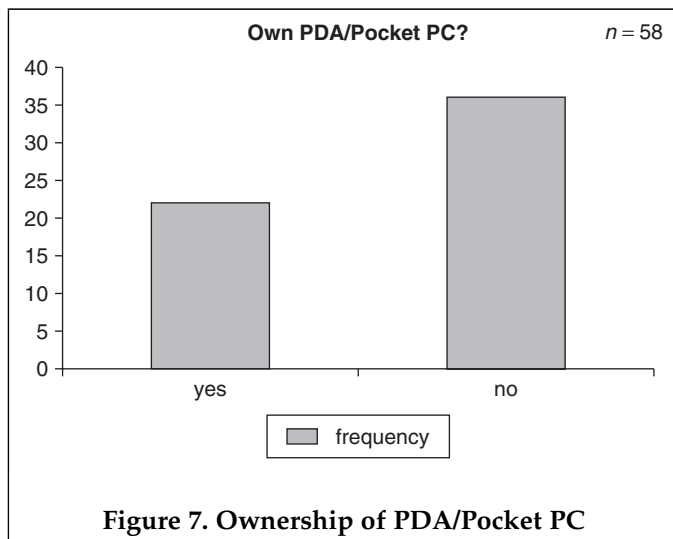
Figure 4. Genres read for pleasure

Figure 6. Respondents' computing experience

Figure 7. Ownership of PDA/Pocket PC

Figure 9. E-book software used

read e-books. For those who did not own such a device (36), responses to the question of whether they might purchase one in the future were as shown in Figure 8.

Just over half (30/58) of the respondents had read an electronic book prior to their use of the collection. In terms of the format they had used, most responded with 'Adobe' or 'pdf' but six had used the Palm format, two had used the Mobipocket format and one respondent listed Microsoft Reader.

E-book software and setup

Question 10 asked respondents which e-book software they downloaded and used for reading. The two offered initially at the site were Adobe Reader and Palm Reader, with the Mobipocket format becoming available during the research as OverDrive migrated
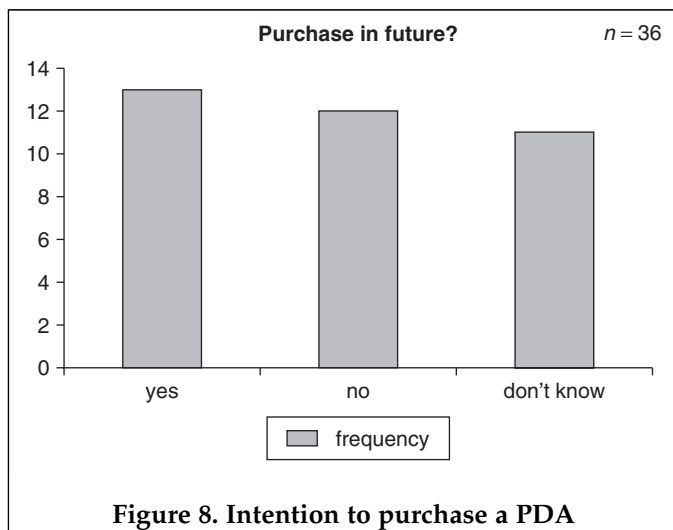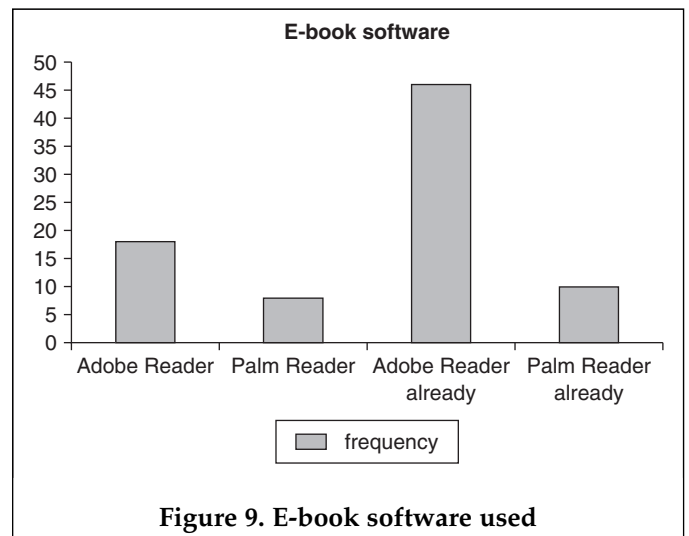
their collections from Palm to Mobipocket. Respondents were offered the options 'I already had Adobe Reader installed on my machine' and 'I already had Palm Reader installed on my machine'. Multiple responses were allowed, with the distribution of responses being shown in Figure 9.

Clearly Adobe Reader has already achieved considerable market penetration with 46 of the sample already having it installed while only 10 already had Palm Reader installed.

Only three people reported any problems downloading or installing Adobe Reader. They commented as follows:

> An error came up during installation and not sure if the problem was overcome as one of the books only appears to be 25 pages long!

> It is too big and bloated – used xpdf (far smaller)

> My company machine will not allow me to activate my device.

Of these, only the first indicates a real problem, the other two being outside the range of control of the library.

There were no problems reported in downloading or installing Palm Reader or Mobipocket.

Respondents were asked if they experienced any difficulties in downloading book titles from the collection. Of the 49 who responded, 41 experienced no difficulties. Of the eight who responded 'yes', comments included:

> With one book, rather than asking if I wanted to save the file, it tried to open it automatically, but wouldn't . . .

> Downloading sometimes slow. Usually has some kind of error that requires re-downloading

Figure 8. Intention to purchase a PDA

The ebrary books cannot be downloaded 'at home'.

Very few respondents reported difficulties reading books on their computer. Of those that did, they were either technical problems . . .

> I downloaded the books to my work PC as I was inquisitive to discover how it works and the books were vaguely work-related. However, I emailed the pdfs home and activated my Acrobat software here, but it's telling me the books have expired and I can't get them into my 'digital editions' section as it says they've expired – how do I view these books on more than one computer (as it says I can on the Adobe site)?

or usability issues . . .

> Page format is difficult to read fluently.

Asked if they found the usage instructions on the Overdrive website easy to follow, 44 people responded 'yes' and 5 responded 'no'. From the latter group, the only comment received was:

> Is there a way of getting an author listing? Searching by category is okay but would like to easily refine by author – especially when collection gets bigger.

Usage instructions on the Ebrary collection were less well rated, with only 30 out of 42 responses being positive. Comments included:

> A bit difficult to navigate

> Information about activation was confusing, and did not ask me to close Acrobat first

> Very messy and extremely unclear – not possible to read from home but did not say this anywhere.

Not surprisingly, therefore, of the nine people who tried both OverDrive and Ebrary, seven expressed a preference for OverDrive. This preference was also reflected in the rating of the selection of books available on the two systems, as shown in Figures 10 and 11.

Reading experience

The final set of questions were open ended and invited comments. Many of the respondents chose not to answer these, but those who did provided some interesting comments.

What did you like about reading electronic books?

In response to this question, eight people used the specific term 'portability' and others gave related responses, for example:

> Easy to take with me when travelling.

Other interesting responses included:

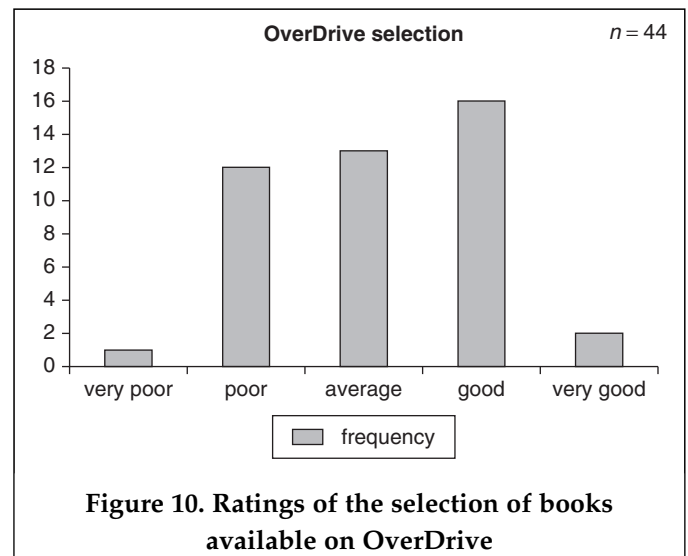> I am physically disabled which makes 'normal' reading IMPOSSIBLE.

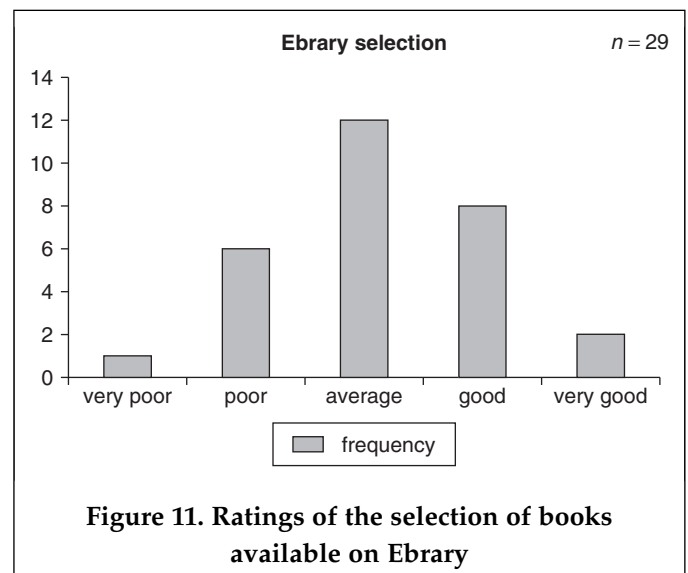**Figure 10. Ratings of the selection of books available on OverDrive**

Figure 11. Ratings of the selection of books available on Ebrary

> As I am disabled it is a doddle to read this way.

> Ability to enlarge font, search, hyperlink.

> The fact that you can download them in next to no time, and start reading straight away.

> I can search through them quickly by key word, easy to print/screenshot notes needed for reference, quick and easy to access.

> Bookmarking, highlighting & making notes 'in the margin'.

For three of the respondents, a positive advantage was that it meant they did not need to go to the library.

> Don't have to go to the library or worry about overdue charges.

In academic libraries, the advent of electronic journals and books has for some time meant that readers have not always needed to visit the physical building but public libraries have still generally been seen as a place to go. It appears this may also change if electronic book collections become more prevalent and may merit further investigation.

One respondent also expressed an ecological consideration:

I always think that I'm saving some forests.

However, one respondent answered the question by saying:

Nothing at all. Completely ridiculous and impractical.

Asked if they thought electronic books have any advantages relative to paper books, 36 people responded 'yes' and 10 people responded 'no'. Portability was again mentioned by several respondents, as was the fact that they could be accessed at any time and that a visit to the library was no longer necessary. The ability to search the text was also mentioned by several respondents. Other interesting comments included:

No late return fees, no storage space needed.

Convenience, environmentally friendly, time and space saving.

Because you don't have to copy any texts, and you don't clutter your home with loads of books.

Easy to navigate. Better visual image.

What did you dislike about reading electronic books?
Common responses to this question related to reading from a computer screen, both the perceived strain of doing this – but note the general lack of physiological evidence (Dillon, 2004) – and also the requirement to sit in front of the computer rather than, for example, 'curl up on a sofa'. For example:

I sit in front of a computer all day reading and when I want to read for pleasure, it's not particularly pleasurable to do so sat at the desk.

Several respondents also mentioned the physical difference between e-books and paper books, for example:

The 'feel'. Laptops are too bulky, PDAs too small, all are reliant on batteries or mains electricity and you don't get the same feel of progressing through the book – being able to see and feel how much more there is to go.

One respondent was particularly forthcoming on the difference in ways of using the two forms of book:

BIG thing that I realised is how much I like to flick through a couple of pages, (normally, start, middle, end) in choosing what book to read: here it all depends on the cover and extract, which may not be that telling. It's very frustrating to be limited to 3 books and not be able to return the ones I realised I didn't want to read, after all!

Other interesting comments included:

Not enough titles yet.

The digital rights management technology.

Not good for large format books or pictures.

The same respondent who said they liked 'nothing' about electronic books (see above) replied to this question with:

Everything – Impractical. Difficult on the eyes. Pointless.

. . . clearly not yet a convert to the cause!

Asked if they thought electronic books have any disadvantages relative to paper books, 26 said 'yes' and 17 said 'no'. Common responses referred to difficulties in working with e-books in ways similar to working with paper books:

Not as easy to have several sources open at once to cross reference.

Harder to skip back/forward.

Sometimes you want to use a book as a reference while using a PC for something else.

Other common responses referred to the need for equipment:

You need something to read them on rather than just picking up a book and reading it.

Not much compatibility with devices.

Perhaps the most interesting question was the final one which asked how, in the respondent's opinion, the reading experience differs between e-books and paper books. Only 21 people chose to answer this question and many of the comments repeated points made earlier either in favour of e-books (e.g. ability to search) or in favour of paper books (e.g. the 'feel'). Three of the respondents expressed the view that there was no difference in the reading experience.

However, the most vociferous response came from the person who liked nothing/disliked everything about e-books (see above):

If somebody invented the traditional book tomorrow, all the lemmings would be blinded by the invention of something so simple, so wonderfully flexible and user friendly. A proper book can be read in bed, at the table, while traveling, in the bath, taken on holiday etc. etc. Add to this that many books are highly desirable and pleasurable items to own, attractive, even cuddly! Try telling an 8 year

old that she would be better off reading Beatrix Potter on a computer. In our technology led society, it is becoming necessary for the more intelligent among us to stand up and state the obvious – just because something is technologically possible, it does NOT mean we need it.

We quote this in its entirety because it indicates the emotional commitment which some people feel towards paper books. In fact, as several of the other respondents noted, an e-book on a PDA can be read in bed, at the table, while travelling, in the bath and taken on holiday – several pointed to the fact that such e-books were more convenient because a small PDA device could hold many books. If the eight year old has not taken to reading, she may well find an interactive version of *Peter Rabbit* on the PC more engaging and may encourage her to read more.

CONCLUSIONS

As with the 2004 iPAQ study which preceded this investigation, the results of the questionnaire offered a snapshot of usage and attitude to e-book collections in public libraries in the UK in the early years of the 21st century. Some of the positive impacts of e-book collections included issues which were noted in the 2004 survey, particularly with regard to portability ('*can read anywhere*', '*easy to take with me when travelling*'). Unlike the 2004 survey, three respondents considered e-books an advantage in saving time and effort actually visiting the library – a 'positive advantage' we did not expect to see.

Participants in this survey differed from those involved in the iPAQ survey in one obvious regard. Technological issues in this survey were raised, but involved few comments beyond dislike of Digital Rights Management and grumbles about download times. Participants using the Ebrary collection had to use Library PC terminals (it was not available for home usage), and those using OverDrive were downloading titles onto their own computers rather than being given iPAQ devices to use by the Library with titles already loaded on. Before accessing the e-book collection, 46 of the 58 participants had Adobe Reader on their computers.

Strengths of the online collections included:

- portability issues;
- OverDrive selection 'good' (16/44);
- disabled access to e-books;
- time saved visiting the library.

Many less-enjoyed features have been raised before – in particular the common 'can't read in the bath' and 'need power supply' comments that were noted in feedback from the iPAQ study participants. Beyond negative comments on Digital Rights Management technology, most of the comments related to the loss of tactility (in one case,

not being able to 'flick through', and not finding reading pleasurable when 'sat at the desk'), to those who rejected the experience entirely ('Impractical. Difficult on the eyes. Pointless').

Weaknesses of the online collections included:

- lack of sensory experience ('here it all depends on the cover and extract, which may not be that telling');
- DRM technology;
- dislike of reading and perceived strain;
- need for power supply, and other common issues.

It is perhaps tempting to view the e-book sector as one which will somehow overcome these obstacles and after a slow start reach the heights predicted by Bill Gates and others at the turn of the century (Trott, 2000). For example, the development of new e-book hardware such as the Sony Reader might indicate a new market, as might the number of UK public libraries who have adopted NetLibrary's 'eAudiobook' collections during 2006 and 2007. As unpublished research carried out in June 2007 at the Department of Information Science clearly shows, three UK public library authorities have e-book collections, with a further 10 hosting eAudiobook collections (MacDonald, 2007). When this is compared with the almost saturation level of uptake for e-serial collections in the same period, it appears that electronic access to public library collections has thus far favoured reference collections, and not the electronic book.

ACKNOWLEDGEMENTS

NOTES

1. The Laser Foundation was set up in 2001 as a grant-awarding body, and helped research into a variety of research in UK public libraries. See: http://www.bl.uk/concord/laser-about.html. It awarded its final grants during 2005.
2. Hewlett Packard iPAQ Pocket PCs were used to host the PDA collections. Additionally, an Ebrary collection was purchased for use in the library (owing to usage constraints, it was not available to library patrons at home), along with an OverDrive collection which was available to all patrons with Internet access. Titles from the OverDrive collection were also downloaded onto PDAs for lending out.
3. The questionnaire is reproduced in Appendix 2.
4. http://tinyurl.com/2acklh

REFERENCES

Bush, V. (1945) 'As we may think', *Atlantic Monthly* 176 (1) July: 101–8.

Dearnley, J., McKnight, C. and Morris, A. (2004) 'Electronic Book Usage in Public Libraries: A Study of User and Staff Reactions to a PDA-based Collection', *Journal of Librarianship and Information Science* 36 (4): 175–82.

Dillon, A. (2004) *Designing Usable Electronic Text*, 2nd edn. Boca Raton, FL: CRC Press.

Ebrary, URL (consulted February 2007): http://www.ebrary.com/corp/libraries.jsp

Essex County Library, URL (consulted Februray 2007): http://essex.bookaisle.com/9AE3599E-EFF0-4784-BB90-588EFC890D2B/10/37/en/Default.htm

Garrod, P. (2003) 'Ebooks in UK Libraries: Where Are We Now?', *Ariadne* 37, URL (consulted July 2007): http://www.ariadne.ac.uk/issue37/garrod/

MacDonald, E. (2007) 'Ebooks and Eaudio: The Present Situation and Future Possibilities', unpublished Masters dissertation, Department of Information Science, Loughborough University.

McKnight, C. and Dearnley, J.A. (2003) 'Electronic Book Use in a Public Library', *Journal of Librarianship and Information Science* 354: 235–42.

OverDrive, URL (consulted Februrary 2007): http://www.overdrive.com/

Thompson, J. (2005) *Books in the Digital Age*. Cambridge: Polity.

Trott, B. (2000) 'Gates sells "Phase 3" of Internet to CEOs', *Infoworld*, 24 May, URL (consulted April 2007): http://www.infoworld.com/articles/hn/xml/00/05/24/ 000524 hngatesceo.html

Vidana, M. (2003) 'e-books in public libraries', *Update* May, URL (consulted August 2004): http://www.cilip.org.uk/update/issues/may03/article4may.html

APPENDIX 1

Essex County ebook Catalogue, January 2007
http://essex.bookaisle.com/9AE3599E-EFF0-4784-BB90-588EFC890D2B/10/37/en/Default.htm

APPENDIX 2

OverDrive & Ebrary Reading Study

Thank you for agreeing to take part in this study. This questionnaire is designed to gather information about you, your background and your feelings about reading using these collections. Please feel free to add any comments to your answers. We will be happy to answer any questions you may have about the study.

Contact: James Dearnley
E-mail: j.a.dearnley@lboro.ac.uk
Telephone: 01509 223060

1. Name:

    [Comments]

2. Age: 1–20   ❑   21–30   ❑
          31–40   ❑   41–50   ❑
          51–60   ❑   61+   ❑

3. Sex: Male   ❑   Female   ❑

4. Occupation:

    [Comments]

Reading Habits

5. How would you characterise your book-reading habits? *(Please tick one)*

    ❑ I read at least one book per week
    ❑ I read at least one book per month
    ❑ I read a couple of books per year
    ❑ I hardly ever read books

    [Comments]

6. Which genres of book do you generally read? *(Tick all that apply)*

    ❑ Romantic fiction
    ❑ Science Fiction and Fantasy
    ❑ Horror
    ❑ Music
    ❑ Children's
    ❑ Autobiographies and biographies
    ❑ History and current affairs
    ❑ Gardening
    ❑ Cookery
    ❑ Travel
    ❑ Other *(please specify)*

    [Comments]

Computer Experience

7. Approximately how long have you used a computer?

    ❑ Less than 1 year
    ❑ 1–2 years
    ❑ 3–5 years
    ❑ More than 5 years

8. Do you own a Palm/PDA device or pocket PC?

    ❑ Yes   ❑ No

    If yes, what are its main uses?

    [Comments]

    If no, is it something you might buy in the future?

    ❑ Yes   ❑ No

    [Comments]

9. Prior to using this collection had you ever read an 'electronic book'?

    ❑ Yes   ❑ No

    If yes, do you recollect what Format it was in?

    [Comments]

Technology questions:

10. Which electronic book reader software did you download and use [Adobe / Palm / both]

11a. Did you experience any difficulties downloading or installing Adobe Reader? [Yes / No / comments / not applicable]

11b. Did you experience any difficulties downloading or installing Palm Reader on your PC or PDA device? [Yes/No/comments/not applicable]

12. Did you experience any difficulties downloading or accessing ebooks from the library [Yes / No / comments]

13. Did you find instructions on the library website easy to follow [Yes /No/comments]

<div align="center">Reading Experience</div>

14. Did you use the Adobe software to [Add comments to books / highlight text / search for particular terms / not applicable]

15. Were there any other Adobe software functions that you found useful [comment]

16. Did you use the Palm Reader software to [Make notes / Bookmark / search for particular terms / not applicable]

17. Were there any other Palm Reader software functions that you found useful [comment]

18. Which of the two collections did you use? [Ebrary / OverDrive / both]

19. If you used both, which did you prefer, and why? [Comment]

20. Was there enough choice of books to read? [Yes / No / Comment]

21. Did you enjoy the content of the book/s you have read? [Comment]

22. What did you like about reading electronic books?
    [Comments]

23. Do you think they have any advantages relative to paper books?

    ❑ Yes   ❑ No

    If yes, please say what they are [Comments]

24. What did you dislike about reading electronic books?
    [Comments]

25.   Do you think they have any disadvantages relative to paper books?

☐   Yes   ☐   No

If yes, please say what they are [Comments]

26.   In your opinion, how does the 'reading experience' differ between paper books and the electronic books? [Comments]