



Evidence Summary

E-book Trial Using Handheld Devices Yields Mixed Reactions from Public Library Staff and Users in Essex County, UK

A review of:

Dearnley, James, Cliff McKnight, and Anne Morris. "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 (December 2004): 175-82.

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Abstract

Objective – To assess e-book delivery on handheld devices provided to public library patrons, particularly housebound or visually impaired patrons and the users of a mobile library.

Design – Product trial with a post-trial questionnaire for patrons and a post-trial focus group discussion among participating library staff.

Setting – Mid-to-large size public library system in the United Kingdom.

Subjects – 23 patrons participated; the number of library staff participating is not identified. Although the target population initially identified was housebound people,

patrons reliant on the mobile library, and visually impaired people, the project team determined that it did not have sufficient funds to upgrade the PDAs to be compatible with their preferred software for the visually impaired, and therefore this group was eliminated from the study. Lack of funds was also cited as a factor in the team being unable to provide assistive technology for those users suffering from arthritis, though this group was not excluded from the study. Just over half the patrons were aged 60+, and more than half were female. Two patrons self-identified as housebound.

Methods – e-books were downloaded onto Hewlett Packard iPAQ 1910 PDAs by library staff and were loaned to participants between January and April of 2004. Although the authors of the study state that

“creating staff champions was an important objective in this project” (p.176), it is unclear whether staff were screened for positive attitude towards e-Books. Prior to the trial, staff members were provided with training and orientation, and participants were asked for their font and reading preferences. Support for participating patrons was available from staff or via an accompanying user manual, e-mail, or telephone help line. In a questionnaire administered following the trial, participants were asked to respond to questions focusing on functionality of the handheld devices and e-book formats, positive and negative reactions to reading from the devices, and differences in the reading experience using the PDA as opposed to a book. A group discussion with participating library staff was held in April of 2004. The feedback from both groups was compared.

Main results – Patrons: The devices were generally found to be usable, with a few exceptions: one patron with arthritis had difficulty operating the device and another developed hand cramps. Positive reactions regarding the novelty of using the devices, portability (the ability to store several books on one small device) and readability (the ability to customize font size and to read in low light conditions) were offset by frustration with low battery life, small screen size, limits on usage (i.e. not to be used in the bath), difficulty paging back and forth (‘getting lost on the iPAQ’), and the inferior sensation of using a PDA as opposed to the ‘tactile’ quality of books. In addition, some patrons voiced fears that e-books might supplant paper books and libraries themselves. In all, thirteen patrons indicated that the e-books had some advantages over books, while eighteen found that there were aspects of using e-books that they disliked as compared to books.

Staff: The staff shared some concerns with users, identifying portability as a strength

and low battery life (including the need to reformat devices after batteries ran out) as a weakness. In addition, some staff felt that some patrons preferred the e-book format for books on sensitive topics, as they provided more privacy in borrowing. Other staff concerns included the potential for users loading other software on the devices and the (presumably in the case of a full roll-out where users would download their own e-Books from home) lack of a broadband connection for some users.

Conclusion – This study should be read as a case study of a trial of the Adobe Book and Palm e-book formats on Hewlett Packard iPAQ 1910 PDAs amongst a small group of public library (primarily mobile library) patrons. While the findings generally indicated that both staff and users found the technology too problematic to be adopted, the trial was confined to the hardware and software specified. Furthermore, since the sample surveyed was small and not randomly selected, it would be difficult to apply the study’s findings to the larger population (exact number not specified in the study) of housebound and mobile library users of the Essex County system.

For those who are considering the introduction of similar technology in a public library setting, the final report on the larger project of which this study was a part is available on the British Library website: <http://www.bl.uk/about/cooperation/laser-pubs.html>

Commentary

The study design allowed for patrons to use the PDAs in their home environments, which provided for greater realism. At the same time, this meant that patrons using the devices were not subjected to the close behavioural observation characteristic of a usability study or an in-depth qualitative approach. Since the method of data collection was a questionnaire designed to

elicit 'reactions' to the technology, sample size and question formulation become of interest when determining the reliability of the results. It is unfortunate, therefore, that the authors indicate neither the size nor the specific characteristics of population the sample was drawn from, nor do they establish whether the sample is representative of that larger population. Selection bias is not accounted for in the choice of patrons, while it is unclear whether selection of staff was deliberately biased in favour of those who demonstrated enthusiasm for the e-books and their attendant technology. The questionnaire used for the study is not provided within the article, nor does it appear on the web-based final report of the larger study, available on the British Library website.

Despite the above-noted issues, the topic under study is increasingly relevant, for, as more and more jurisdictions invest substantial quantities of cash in e-book technology (for example, the 2005 state-wide launch of an e-book service in Ohio: http://winslo.state.oh.us/publib/oep_project.html), libraries that wish to make these services available to patrons on both sides of the digital divide will be seeking workable solutions. However, as the researchers discovered in this study, the limitations of current handheld devices, coupled with their cost, make it tempting to "[leave] e-book formats useable on PDAs...to individuals who own their own devices and are comfortable using them" (p.181). Meanwhile, although "it is easy to speculate that PC tablets and enticing-looking future technologies will solve all the problems that were noted [in the study],...in essence this is the crux – waiting for tomorrow means that more effort will continue to be put into e-book research rather than actual implementation" (p.181).

The research team met with various technical problems as the study progressed (the need for upgrades to accommodate specialized software for the visually impaired, a change in software format from the e-book provider mid-study and, on another portion of the study, major licensing woes). These glitches, as the authors note, can be instructive in themselves. In particular, they note that "settling on a format, and building a collection therefore offers public librarians a specific and crucial problem to grapple with – which format to run with and develop" (p.176). A list of e-book implementation guidelines based on the researchers' experiences are given in the project's final report.

Finally, the authors note that a full cost-benefit analysis in introducing such technology into library collections is beyond the scope of the study. Nonetheless, for public library decision makers thinking critically about the allocation of collection development funds, such an analysis would be of real practical value.