E–Book Technology in Libraries

Linda C. Wilkins
University of South Australia, Australia

Elsie S. K. Chan
Australian Catholic University, Australia

INTRODUCTION

The shift towards electronically mediated texts entails major structural issues for libraries and the publishers and aggregators who supply them. Stakeholders within the digital supply chain are struggling to reconceptualize the book as an artefact (Esposito, 2003). Academic and scholarly libraries are at the forefront of these changes. In this article we review some recent developments in the technology underpinning e-books, introduce some of the key players, and review influences affecting uptake.

BACKGROUND

Libraries have traditionally played a key role in providing access to and disseminating information across a community. That role has now extended to facilitating access to innovative technologies. Technological improvements such as Amazon's Look inside the Book technology and Google Print offering pages of a book on the Web drive accelerate demand for access ("The Economist," 2005). Such developments have generated pressures on libraries to make research output more widely available through search engines and open access mechanisms which in turn result in rising accessibility of research material via downloads and citations (Rosenzweig, 2005). Electronic access in the form of electronic journal subscriptions, e-books, and databases has resulted in the rapid and continuing evolution of library facilities. Many public libraries have experimented with a variety of e-book devices while academic libraries have overseen a dramatic shift in the percentage of their budget allocation dedicated to the provision of digital resources.[1] Hence, a review of the current provisions of electronic resources in libraries appears to be timely.

ENGAGING WITH E-BOOK TECHNOLOGY

The term *e-book* is unsatisfactory in many respects. In the case of traditional print books, users can immediately understand and identify elements belonging to book technology.

By contrast, the term e-book does not explain either the form or its operations (for further information see Lynch, 2001, p. 125). As a generalised term it was initially applied to three types of appliances: e-book, e-tablet, and Personal Digital Assistant (PDA). Only their design, purpose, and size distinguished them from software book readers. Table 1 lists devices available in 2005.

Reader software can be categorised by e-book formats. Abobe, HTML, and Microsoft readers are some examples of e-book formats. Table 2 lists different formats of e-book software.

E-Books in Public Libraries

The period between 1999 and 2001 saw a surge in e-book reader trials in libraries in the United States, Canada, Denmark, Norway, and Australia.[2] Trials of e-book reader hardware in Australia, Canada, and the U.S. recorded overwhelmingly positive responses from pilot group users and librarians alike (Wilkins, Coburn, Burrows, & Loi, 2001). In Australia, user participants in the Brisbane Public Library e-book reader pilot study loved the compact, portable nature, adjustable font size, dictionary, and search and bookmark functions of dedicated e-book readers while librarians were keen to showcase the new technology. Many saw the readers as an opportunity to expose their community to technology as it "came down the pipeline" (Glencoe Public Library Illinois, USA, as cited in, Wilkins et al., 2001, pp. 252-253).

A generic feature of rapid technological change is the proliferation of designs, many of which will inevitably fail over time (Bijker, 1995). At a time when proprietary platforms dominated the marketplace, librarians found it difficult to make decisions about which device to go with, which text format to choose, and what copyright arrangements to take up. Eventually those librarians who had pioneered e-book reader technology trials in multi-year pilot projects found themselves tied to restrictive access models with exclusive proprietary book file format.[3] Unique formats that can become obsolete at any moment slow uptake and support for e-book reader hardware. The limited range of titles available on the available hardware also meant their appeal to borrowers faded over time (Lynch, 2001). By 2005 these early adopters found that "dedicated readers with pre-loaded content were

Table 1. e-book reader device (adapted from eBookMall (2005a)

Device	Example Image	eBook Format	Weight in oz.	Size	Screen Description
Gemstar eBook		Gemstar eBook	17	largish	4.75" x 3" Monochrome Back lit Touch screen
Handspring Visor		Palm Reader Mobipocket	5.4-6.9	smallish	about 3" x 4", some color, some not
hiebook		hiebook	8.8	115.4 x 146 x 17 mm	Back lit 480 X 320 px touch screen LCD display
Palm		Palm Reader Mobipocket	4-6	4.82" x 3.1" x .87"	Advanced LCD with backlight
Pocket PC		Microsoft Reader Mobipocket	6-16	Depends on device	Reflective or Transflective LCD, 16+ colors

not what patrons most wanted in an eBook" (M. Williams, personal communication, November 30, 2005).

The introduction of software book readers that run on general purpose computers and require no additional financial outlay for a separate hardware device or book reading appliance has effectively turned the desktop or laptop into book reading appliances. Many of those users accessing texts electronically on general purpose computers appear to be doing so in academic and research library settings.

E-books in Academic and Research Libraries

Our customers expect electronic content. (Woodward, 2005, p. 3)

Academic libraries are particularly well suited to the e-market with their large, expensive, and rapidly dated reference books that are costly to weed out (Michael, 2005). While all librarians have a professional commitment to efficient document delivery and place priority on offering content that their users require, librarians in research settings experience significant additional pressures to seek optimal methods for providing access, disseminating, receiving, and reporting publications. All students have now come to expect free Internet access; on-campus and part-time students require remote and 24/7 access via private ISPs. Researchers place priority on speed, timing, and knowing the latest in cutting-edge technology.[4] Institutional requirements for the library to provide information in a cost-effective way add to these pressures from competing constituencies.

Electronic delivery systems appear to offer solutions to many of these needs and requirements. Online search functions, easier navigation, the ability to cut and paste, well-organised and up-to-date materials, convenience (no carrying of books), paper saving, and lower levels of physical maintenance are all attractive features of e-book provision. Academics also appreciate that requirements for accessing e-books encourage students to copy with appropriate acknowledgement.

These features of the research constituency favour electronic delivery and hence offer a partial explanation for the dramatic growth in e-resources as a proportion of academic library budgets. Underpinning the drive for uptake is the fact that electronic publishing has transformed the book into a

Related Content

Tasmanian Police Call Centre Project: Offence Reporting Process
Leonie Thomas (2001). *Annals of Cases on Information Technology: Applications and Management in Organizations (pp. 259-269).*
www.igi-global.com/article/tasmanian-police-call-centre-project/44620

E-Governance
Srinivas Bhogle (2009). *Selected Readings on Information Technology Management: Contemporary Issues (pp. 40-62).*
www.igi-global.com/chapter/governance/28660

Systems Design Issues in Planning and Implementation
Mahesh S. Raisinghani (2002). *Annals of Cases on Information Technology: Volume 4 (pp. 526-534).*
www.igi-global.com/article/systems-design-issues-planning-implementation/44529

Internet and Multimedia Communications
Dimitris Kanellopoulos, Sotiris Kotsiantis and Panayotis Pintelas (2009). *Encyclopedia of Information Science and Technology, Second Edition (pp. 2176-2182).*
www.igi-global.com/chapter/internet-multimedia-communications/13881