E-Books and education, some reflections – Paul Catherall

Introduction

Recent years have seen a proliferation in 'smart phone' and ebook reader devices, such as the *iLiad, Nook* and *Sony Reader*. Most recently the Amazon Kindle has taken a leading share in the individual user E-Book market (coupled with the launch of the Kindle online book store on Amazon to purchase e-books in the proprietary Kindle format). Parallel to these developments is the growth in E-Book collection systems for the education sector, such as Ebrary, MyILibrary and others, where academic titles are made available by publishers through these third party providers. E-Books are also being produced outside the commercial world, by private individuals and within the education sector, often within private or open systems on the WWW.

Background

The technology to create and disseminate E-Books has been around since the rise of the Internet in the 1970s, early electronic texts were often seen in plain text and available via Gopher and other network channels prior to the World Wide Web. One of the earliest successful E-Book resources was Project Gutenberg (http://www.gutenberg.org), established in 1971 at the University of Illinois network, providing texts in a variety of file formats, with more recent formats reflecting new document technologies and applications. Other similar E-text projects are available on the Internet, in a variety of languages, including a French language service, *l'Association des Bibliophiles Universels / The Association of Universal Booklovers* (http://abu.cnam.fr), *British History Online* (http://www.british-history.ac.uk) and the *European Library* (http://www.theeuropeanlibrary.org).

Copyright and Intellectual Property (IP)

The dissemination of E-Books has always been subject to Copyright and Intellectual Property (IP), ensuring that most works, unless declared free from normal copyright restrictions would be restricted from open dissemination on the Internet. The arrival of the Creative Commons organisation has helped to reduce the ambiguity faced by authors and users wishing to disseminate texts feely online, allowing authors to define their works under the various CC licenses, including:

- Attribution (CC-BY)
- Attribution Share Alike (CC-BY-SA)
- Attribution No Derivatives (CC-BY-ND)
- Attribution Non-Commercial (CC-BY-NC)
- Attribution Non-Commercial Share Alike (CC-BY-NC-SA)
- Attribution Non-Commercial No Derivatives (CC-BY-NC-ND)

These licenses are explained by their respective codes:

- Attribution (BY): requiring attribution to the original author
- Share Alike (SA): allowing derivative works under the same or a similar license (later or jurisdiction version).
- Non-Commercial (NC), requiring the work is not used for commercial purposes.
- No Derivative Works (ND): allowing only the original work, without derivatives.

http://creativecommons.org/about/licenses/

In addition to E-Books disseminated by authors under schemes such as Project Gutenberg, the Creative Commons license has also been adopted within the Open Source computer software

community, and in other spheres such as musical works and educators wishing to disseminate online learning materials such as presentations, course texts and interactive learning objects.

Google Books

Within the public arena of the World Wide Web, we have also seen the recent rise in prominence of Google Books (http://books.google.com), a sub-set of the Google suite of Web search tools, also linked to the Google Scholar academic search system used increasingly within the education sectors. Google Books offers preview content (often missing certain pages or chapters) of commercial texts which are restricted by copyright and publisher's license, but also includes Creative-Commons derived works and works which have lapsed copyright status (also a major source of E-Books area in Project Gutenberg).

Google Books resources cannot usually be downloaded, unless this has been allowed by the publisher or author and most commercial texts must be read online within the Google Web interface, requiring the user to remain online whilst reading. Google has been subject to several legal proceedings as a result of scanning, then disseminating electronic copies of commercial texts, with the main controversy involving disagreement by European publishers over an earlier US settlement with publishers groups. The current position by Google is the use of a settlement resolution Web site, allowing authors and publishers around the world to register for royalty-style payments from Google.

In response to controversies over Google Books, the French Premier Nicolas Sarkozy has promised to develop a multi-billion Euro collection for European textual heritage (http://www.telegraph.co.uk/technology/google/6811462/Sarkozy-fights-Google-over-classic-books.html).

Wikis and the Democratic Web

Another perhaps less obvious source of E-Books are represented by Wikis *(often described as part of the new more democratic and interactive "Web 2.0" environment)* containing encyclopaedic type resources which are increasingly competing with traditional reference works. The most obvious and successful of these is Wikipedia (http://www.wikipedia) which describes itself as *'a free, web-based, collaborative, multilingual encyclopedia project supported by the non-profit Wikimedia Foundation'* (http://en.wikipedia.org/wiki/Wikipedia). The democratic and collaborative nature of Wikis have drawn controversy over the authority and quality of information submitted by voluntary editors, however, these systems are becoming more accepted by the academic community as an inevitable starting point for user reference.

Research Repositories

The academic and education sectors have also begun to invest in another source of E-texts, namely research repositories or archives. Research archives are usually secure text publishing systems locally hosted on University or other organisational servers, textual materials are then added by associated academic staff, researchers and students (often including 'pre-print' versions of scholarly chapters or articles due for publication as copyrighted works). Research archives can then be made available online for public access, often citing an open access license such as Creative Commons. In addition to many Universities and other organisations providing their research works online for public access, we have also recently seen the emergence of repository hubs, such as arXiv (http://arxiv.org), Cogprints (http://cogprints.org) and others, joining thousands of individual repository systems within a single interface. These systems have grown from initially small University projects to become a viable open academic source for researchers and students.

Commercial E-Books

Despite the growth in democratic and open access E-texts on the Internet, there remains a substantial commercial market for E-Books, including the individual user market, recently characterised by the Kindle E-Books handset and store on Amazon.com, and also characterised by large E-Book publishers/ providers such as Ebrary, Myilibrary, Springer, Morgan and Claypool and others. These secure systems are often used within the education sector to provide bulk subscriptions for E-Books to University or college users. Most of these systems require the user to search individual collections for E-Books by keyword, then download the text in PDF or similar format, or in some cases to read the E-Book online within the Web interface provided. Some of these systems have restrictions on downloading or printing texts, requiring the user to remain online whilst reading the book.

Conclusion

Clearly the E-Book market is still dominated by commercial issues, such as Intellectual Property and the profit motive of book sellers and authors. However the rise of the World Wide Web, increasing IT literacy and access to usable applications for publishing, via Blogs, Wikis and other channels, both privately and within organisations are presenting new opportunities for publishing outside the traditional boundaries of publishers and commercial channels. Private individuals, academics, librarians and private individuals can contribute to democratic textual information on the Web and access an increasingly important body of literature from these diverse sources.

However, there remain important questions to be considered regarding E-Books and the increasing democratisation of literature. We could argue that the authority of texts traditionally regulated by peer-review processes in the publishing industry is now less certain than in the past. A wide demographic spectrum, including young people are now able to make their contribution to democratic information sources, one could argue that this process may bring a lack of experience or academic judgement to collaborative writing. Sources such as Wikipedia are routinely edited over with material which can be arguably inaccurate, biased or pejorative, a process which requires constant democratic debate within Wikipedia's editorial discussion pages and use of strict citation rules, to ensure accuracy and reliability of information.

Access to E-Books provided with DRM (Digital Rights Management) features, such as restrictions on downloading or printing can also have accessibility implications for disable users relying on screen reading, Braille or other adaptive software which may have problems with DRM features. These kind of commercial texts can also present difficulties for users with lower bandwidth or less sophisticated computer systems, where DRM software relies on recent versions of the Windows, Apple Macintosh and other Operating Systems or Web Browsers. Recent E-Book reader devices, such as the Kindle have also exhibited restrictions related to use of proprietary formats and ability to transfer purchased books between devices and computer systems.

Clearly the E-Book market is an area of activity in a state of flux at the moment, and we are seeing Internet technologies exploited for democratic, commercial and educational imperatives. Commercial providers have struggled to adapt their business models to the Internet, with many publishers unwilling to publish texts in electronic format; however, use of DRM has seen the commercial E-Book market grow in recent years. It remains to be seen how far the domain of E-Books will remain a diverse array of approaches, formats and systems, or if some ubiquitous model will emerge for the dissemination and display of E-Books.

Paul Catherall is an E-Learning Support Librarian at the University of Liverpool and author of 'Delivering E-Learning for Information Services in Higher Education' (Chandos Publishing, 2005).