eBook devices 2007

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Two steps forward, one step back; the eBook parade goes on. More and more reading material is appearing in electronic form, but purchasers remain resistant to the idea of using eBooks in preference to printed ones. The number of eBook users is creeping slowly upwards, but it's still a long way short of the lucrative market that media and software companies would like to see. Can the process be accelerated? Is there a formula that will bridge the gap between what the public want and what publishers are willing to provide?

In the late 1990s there was a surge of interest in hardware solutions: the Rocket eBook and the Franklin eBookMan were developed on the assumption that people would buy devices – if they were good enough – which did nothing but replace books. They failed, and I predicted at the time that general-purpose devices like the Palm and other PDAs would be the medium of choice for most eBook readers. I didn't foresee that sales of PDAs would themselves soon drop away. Most people who want a PDA, apparently, have one by now. Those who don't have them want something else; but what?

Lots of them want portable music and video players. One hardware success story of the 21st century has been the iPod and similar devices – small, easy-to-use high-capacity personal entertainment devices. Beginning with music files, these are now being used to store and play back video clips as well. This requires them to have a bigger, high-quality screen. Could entertainment devices be used for eBook reading? There's no reason why not.

Lots of others want mobile phones. And when a $150 mobile phone includes a memory card slot, MP3 player, still and video camera, calendar, alarm, memo pad, a web browser, a Java environment for games, a Bluetooth connection (see (2006) 21(1) OLC 12) and high-resolution colour screen, you can start to see why nobody wants a PDA any more. Most importantly, perhaps, the phone comes with a compelling reason to carry it around, whereas a PDA is something you have to remember, but usually forget. It's just those unexpectedly idle moments while waiting for the NRMA or sitting in the doctor's surgery, that might convert a person to eBook reading.

And many more users want increasingly sophisticated games machines. Could books steal back some time from game-playing youth if they could be read on a PlayStation or Wii device? Some authors are willing to bet on it.

So, eBook devices are still under siege; only the enemy has changed. However, this hasn't stopped some large companies from backing the dedicated eBook model, jazzed up with the latest technology. I will look here at four new eBook reading devices and – for comparison – the options for reading on an iPod, or similar device, and on a mobile phone.

DEDICATED READERS

Sony LIBRIé and Reader

The Sony LIBRIé [sic] is a Japanese-language eBook reader released in March 2004. The LIBRIé is about the size of a paperback book. It takes a Sony memory stick and connects to a PC via the USB port. It has a 600 x 800 pixel display screen with a resolution of 170 dots per inch (dpi) – about two-and-a-half times that of a standard PC monitor. The screen uses the EInk "electronic paper" system; this is a high-contrast display in four shades of grey, which draws power only when the display is changed, making for a dramatically extended battery life. Sony claims up to 7,500 page turns before the onboard lithium battery needs recharging. Homemade videos of the LIBRIé show the "page turn" as a relatively slow process, accompanied by a rapid flicker. Reviewers vary as to whether or not they find this annoying.

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Definitely annoying, though, is the use of digital rights management (DRM) to impose a "library" model on LIBRIé users in Japan. Books are provided by a Sony-publisher joint venture called Publishing Link, and protected from copying or exchange. Content from Publishing Link is set to expire and be unreadable after 60 days. It's not clear how happy Japanese customers are with this arrangement, but it has attracted a lot of critical comment from English-speaking reviewers.

A version of the LIBRIé was developed for the Roman alphabet and released in November 2006 under the name Sony Reader. The Reader has a slightly larger screen than the LIBRIé, although the resolution is the same. The alphabetic keyboard that the LIBRIé has across its lower front has been replaced by a row of numbered buttons, limiting user input. To emphasise the "bookish" nature of the device, the Reader is being sold in Borders bookstores in the United States; the RRP is US $350.

The Sony Reader uses an iTunes-type interface to provide access to eBooks from Sony's online store. The books are copy-protected but can be read on up to six devices. There is no provision for printing or annotation, but there is no time limit on possession of the books. Users can also use the Reader with their own documents but not with protected PDF files. It will also play MP3 music files. There is no touchscreen capability, as there is with most PDAs. In addition to the Sony memory stick slot there is also a socket for the more widely-used SD cards.

Content for the Reader is being sold by Sony's Connect website (http://ebooks.connect.com), which already has an established music business. eBook prices vary between about US $12 and US $15, though there are already specials and discounts on offer.

All commentators on the Reader are impressed by the clarity of its screen. It is apparently selling well in the United States, and we can expect to see it in Australia within a few months. Details of the Reader can be found at http://www.learningcenter.sony.us/assets/itpd/reader, and a video review at http://www.pcmag.com/article2/0,1895,1983663,00.asp.

iRex iLiad

Competing with the Sony Reader on its own ground is the iLiad [sic] from iRex Technologies, a spinoff from the Dutch Philips company. The iLiad is slightly larger than the Reader and uses a 1024 x 768 pixel EInk screen with a similar resolution -- 160 dpi against 170. It also has a headphone jack and memory card slots but, unlike the Reader, it supports wireless networking, eliminating the need to plug it in to a PC, and it has touchscreen capability which supports handwriting recognition. The iLiad is priced considerably higher than the Reader, at US $699. iRex is chasing the reference market rather than casual users; one marketing point is that it can replace a stack of school textbooks. The battery is rechargeable and its life is given as 21 hours of use. There are navigation buttons along the base of the front and at the left side of the screen.

An early iLiad video review, at http://www.youtube.com/watch?v=UdlPHxPNw-Y, shows a very slow page turn, but this has apparently been improved in later versions.

The iLiad operating system is a variety of Linux, which should open up the field for many free or cheap home-brewed extensions and improvements to the software. A simple hack has already been written to provide it with web browsing capability.

iRex do not offer any eBooks themselves, but the iLiad comes with a number of built-in programs which can display various common file formats, including PDF and TXT. A vertical bar down the left face of the device allows users to page through documents. A stylus allows readers to enter handwriting and make notes on their texts.

Jinke Hanlin eReader

And what of the Chinese? Reports say that the Chinese government is seeking to supply all school texts in electronic form, a niche market that will make all previous eBook sales look tiny. The Chinese company Jinke is producing a line of eBook readers similar in appearance to the Sony Reader, the first of which should be available by the time this article is published. A price of US $299 is being quoted for overseas sales, which will make it a strong competitor. As the Chinese themselves would say, "may you live in interesting times".

eRead STAReBOOK STK-101

Also from China, announced in March last year but apparently not yet for sale in the west, is the eRead STAReBOOK ("star-e-book", not "stare-book", presumably), a clean-looking device with a six-inch grayscale screen. The price is quoted to be about US $420. Details are available at http://www.stareread.com/en/reader.html.

Amazon Kindle

The Kindle is a prototype eInk-based eBook reader backed by Amazon, which, if and when it is ever released, will presumably be linked in some way to Amazon's role as book supplier to the world. The idea of Amazon getting into eBook distribution is exciting, and the suggested price of US $50 even more so, but so far the device itself is not – unless you happen to be a fan of 1980s styles. Specifications are similar to those of the Reader and the Jinke. Pictures show a clunky-looking device with clumsy rectangular keys and a drab grey screen. You can see it and read some informed comments, at http://tinyurl.com/rvuxf.

FIGURE 1   Reading on a Mobile Phone
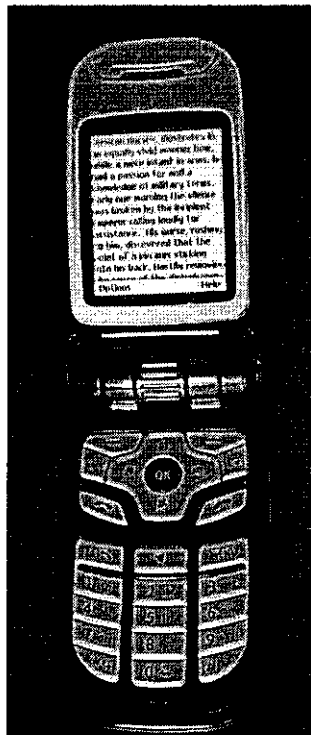
eBooks on a mobile phone

Movies, photographs, voice recording, music files – what's missing? That's right, despite cramming in a swag of other entertainment options, mobile phones have no inbuilt eBook capabilities. This is doubly irritating since they can already display text in the form of SMS messages and memos. However, don't despair! Third-generation (3G) mobile phones come with Java capabilities, which means that third parties can provide "applications" – essentially programs for your phone. There are currently three approaches that allow for eBook reading on mobile phones, but more may be on the way; at least one major publisher, Random House, has expressed interest in this area.

Note that you may need to add a memory card to your phone, or purchase browsing capabilities from your provider, for some of these methods to work.

Your eBooks as Java programs

Several websites exist that will take TXT files and repackage them as JAR (Java programs). These can then be downloaded to a PC and copied on to the phone through Bluetooth or a cable connection. An example is the site http://www.t41.nl. The process is cumbersome but it has the advantage of being completely free and allowing you to submit your own material. Running the program on your mobile phone causes the eBook to display in a paged sequence. Simple features like bookmarking and search are also available.

A variant on the above is to download eBooks that have already been converted to JAR program format. Most of these can be found at the ManyBooks mobile phone site, at http://mnybks.net.

A reader program for text files

Users of mobiles running the Symbian operating system – mainly Nokia and Ericsson phones – have a choice of two eBook reading programs, including the well-known Mobipocket – see http://tinyurl.com/wswyb for details. These are genuine reader programs, which can display a range of unconverted file types, including TXT and standard Palm formats. The Hillbilly Interactive site (http://www.hillbillyinteractive.com) is selling a similar program called Libris, which should work on most Java-enabled phones.

Payment models

The few existing commercial mobile phone eBook systems use either a pay-per-download system or a subscription model, where users pay for a period of unlimited eBook use. Examples are available at http://www.tx2ph.com and http://wap.mobilebooks.org.

eBooks on an iPod

Newer iPods have a Notes capability which can display text files up to a maximum size of 4kb. Creating an iPod eBook then becomes a matter of chopping up text files into small enough chunks. This can be done online – see http://www.ambience.sk/ipod-ebook-creator – or on your own PC with a downloaded program, such as that from http://www.ipodebookmaker.com. An onsite photograph shows a tiny, but legible, chunk of text. No doubt Apple and its rivals will adapt their devices appropriately if the demand is seen to be there.

eBooks on games devices

The concept of using a device designed for gaming as an eBook reader has been explored by both publishers and readers, but without conspicuous success. The technology is there, but are game console users into reading at all? One brave author has released his books in a form that can be read on the new Nintendo WII and Sony PS3 – see http://www.darrenreid.co.uk/freeebooklibrary.htm, but mainstream publishers aren't scrambling to follow suit.

CONCLUSION

Books may be in trouble, but reading certainly isn't; we all have more to read than we can handle. Whether that reading can be made more efficient or more pleasurable by specialised electronic devices than paper is yet to be proven. I still vote for my trusty PDA; but it's good to see companies and consumers supporting experimentation in this area. The outcomes will benefit us all.