From Print to eBooks: Competition or Concurrence

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Abstract

This paper looks at the current two most popular formats for reading, viz. printed books and magazines and electronic versions of the same. It seeks to trace the evolution of the these two formats over the last few years, to analyse readership patterns and examine if they are in any way linked to their native format or are there other factors, such as publishers for example, that motivate the reader to adopt one medium in preference to another. The paper also seeks to comparatively evaluate the advantages and disadvantages of both formats amongst consumers as well as guage acceptability of print or eBooks at an institutional level such as libraries. Methodology followed is an extensive review of literature and one-on-one Interviews.

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1. Introduction

A medium hitherto dominating user preferences for decades has, in the last few years, witnessed a serious threat from a new form of content delivery – the electronic book, or eBook as it is more commonly known as.

While the eBook is a relatively new entrant in the field, it is rapidly coming alongside print as a mainstream alternate reading format and has in recent years, begun to pose a serious threat to it.

Despite its newness and novelty, e-content it has made rapid progress both in growth as well as in popularity.

"At the end of the1990s, things looked promising for e-publishing. NuvoMedia's Rocket eBook hit the stores in 1998 and was quickly followed by SoftBooks Press' SoftBook, the Every Book, and software that allowed the downloading and reading of book text on Palm and other personal digital assistants. The price of readers was dropping and, in 1999, Microsoft affiliated itself with a group of 75 publishers to define a technical open standard that would permit book files to be read on multiple platforms—desktop computers, a variety of portable, dedicated reading devices, and handheld computers (Maxwell, 2000)[i]

The electronic book, referred to as eBook, received a quantum boost in readership as well as acceptance from a reading public conditioned towards conservative tastes in reading, when the Amazon Kindle first launched in 2007.

"Amazon's introduction of the Kindle in 2007 established the first ebook reading device that won wide acceptance with the general public. Amazon used the dominance of the Kindle to aggressively establish itself as the sole ebook distributor of any note"[ii].

The aggressive marketing of the Kindle, coupled with its new found novelty, made it a leader in the eBook market, despite competition from other eBook readers which boasted similar, perhaps even more advanced features. Supported by the website, Amazon.com, the Kindle eBook reader rapidly began to push the envelope of electronic publishing.

Along with the Kindle, many new rivals entered the market also. A new eBook reader, "Kobo", was released, marketed by Borders Group. Touted as the real "Kindle Killer" by Wired Magazine, it also announced an application that provides support for dedicated e-reading devices through the ''Powered by Kobo'' partner program for hardware manufacturers and retailers[iii]. Soon, other eBook readers, and viable reading alternatives flooded the market.

Barnes and Noble's "The Nook" was another eBook which also be considered a serious enough threat to the "Kindle". It's sharing capabilities, colour touch screen and utilizing an Android OS, Google's operating system for mobile devices, the "Nook" packed in many unique features that were not found on Kindle. Not so well known in India, the "Nook" nevertheless managed to capture a large market share segment because of "*its traditional bookstore business with an online store and a reading device, by offering integrated services for the two channels"[iv].*

Other readers have also emerged, but the Amazon Kindle, NOOK GlowLight Plus and Kobo Aura H2O are solid feasible options for entry-level eBook users[v].

eBooks being technology driven, are by and large popular with the youth segment, but they are not without their drawbacks.

2.1 Formats compared

Until recently, one of the biggest disadvantages of the eBook as compared to print books was the complaint that eBooks was a cause of eyestrain and could ultimately lead to poor vision. *"A number of studies indicate physical stress issues arise from reading computer displays. The American Optometric Association has identified "Computer Vision Syndrome," or CVS, as being associated with computer use. Symptoms include eyestrain, blurred or double vision, headaches, increased sensitivity to light, dry eyes, and distorted color vision (Von Stroh, 1993)"[vi].*

Many have reported that they cannot read for long period on eBooks, and

"Students have reported discomfort when reading an e-book and the faster occurrence of reading fatigue (Gunter, 2005; Kang, Want, & Lin, 2009; Jamali, Nicholas, & Rowlands, 2010; Clark, Goodwin, Samuelson, & Coker, 2008)"[vii].

The nagging problem of visual fatigue and eyestrain spurred new technological innovations and the invention of E Ink. E Ink (electronic ink) is a paper-like display technology, characterized by high visibility and contrast, a wide viewing angle and low power requirements. The technology was commercialized by the E Ink Corporation, co-founded in 1997 by MIT undergraduates J.D. Albert & Barrett Comiskey, MIT Media Lab professor Joseph Jacobson, Jerome Rubin and Russ Wilcox[viii]. Although this to some extent ameliorated the problem of redness and itchiness of the eye, other barriers towards acceptability of e-content have been raised.

E ink did enable consumers of e-content to read for long hours without visual fatigue, but this was restricted to only a few hand held devices and brands. The great majority of reading public who were used to reading on non E Ink readers – those with backlit displays or on smartphones, preferred reading for a shorter duration.

Along with physical symptoms like redness or dryness in the eye, general eyestrain, increased usage leading to burry vision or similar signs of visual stress, there appears to be a psychological barrier also to eBooks, e-magazines and similar forms of e-content. Many still prefer the "tactile" physical presence of a book, and feel a sense of closeness with it, an emotional connect, which simply cannot be associated with e-content. Publisher Rajan Arya feels that *"Some people still prefer books because books have their own personality – different shapes, sizes, covers etc"*. He further states that *"Earlier, the charm of going to a library and seeing different books and flipping through it – that's not there in an eBook. Because you have to decide what you want before hand"*. In a focus group discussion held in IGNOU campus, New Delhi, two participants expressed similar

views. One participant said that she liked the "physical feel" of a book, while the other said that "books have a time honoured tradition which eBooks can never replace".

Lindsay Litchi in a fairly extensive study entitled "The effect of eBooks on Reading" found that even retentively of literature read on eReaders is poor and that this trend will *"hinder future generations in learning how to read deeply"* (Wolf, Barzillai).

Furthermore, especially in the case of text books, the fact that you no longer take physical notes (on pen and paper) as is the case with traditional serious reading, seems to lead to poor memory retention. This view is supported by many psychologists and scientists.

"However, the result of taking notes is much more than the production of a passive "external" information store, as the note taking action itself is part of the memorization process and results in the creation of a form of "internal" storage (Kiewra, 1987). Furthermore, the taking of notes seems to ease the load on the working memory and thereby helps people resolve complex problems"[ix].

Another limitation which many readers cite is the dependence of reading on technology. In the middle of reading a book, your battery can die out, in the case of readers with backlit displays, the light can dim or fade out completely, and along with technology there is the ever present "damoclean" threat of obsolescence with many potential buyers, waiting in the wings for new models to emerge in the market before they make a sizeable investment. *"Paper books also have advantages over current e-book technology. E-books require two components—hardware and software; traditional books just require a book. The hardware component can be relatively expensive to acquire; costs range from just under $200 to as much as $1,500"*[x].

One author argues "*that an e-book is like a recording of a live performance, whereas a p-book is the performance itself. The difference is not just in the format, but the whole experience"*[xi].

With regard to the consumption of print books, while ease of reading use, time honoured tradition etc are some of the more commonly cited reasons for preferring hard copies, an interesting comment from a UG student was that *"in the case of books, there is a sense of finality. You can annotate but not add or delete. But in the case of an eBook, you can edit it, and add or delete portions of the book that you like or dislike"*.

Present debates on the two reading mediums, fall into two camps with die hard supporters of the electronic medium making vociferous claims that eBooks will emerge as the reigning champions and another segment of the population making equally confident claims that books were the first medium of communication and will remain forever.

Two focus group discussions and two one on one personal interviews, seem to indicate that eBooks find favour with the younger generation and printed books are hugely popular with the older generation, probably because they are somewhat resilient to the adoption of new technology, although cultural and demographic factors can greatly skew this general trend.

2.2 Library Consumption

While the response of individuals to reading electronic content is somewhat mixed, at an institutional level, e-libraries are becoming rapidly a major knowledge resource for students and the serious reading public. Noted publisher of academic journals, Springer has found that overall, "eBook usage is already 50 percent of its journal usage, while the amount of content compared with journals is only 15 percent"[xii]. The same publisher also found in a study using a population of 12,953 that the average eBook chapters downloads increased from 1445 in 2005 to 1811 in 2008.

(See Figure 1).

Rich Rosy, vice president and general manager of institutional solutions for Ingram Digital, says his company has seen a renewed interest and acceptance of eBooks from both the publishing and library communities.

He says that in the past, libraries purchased eBooks with grant money as part of a pilot program, but funding the electronic titles was never part of the libraries' overall budgets. *"Libraries now have an electronic budget, besides journals, and they're also looking at it as part of their collection strategy,"*.[xiii]

At first somewhat reluctant, now even large government funded libraries are open to the possibility of creation of a huge electronic library database.

Although the beginnings of eBook libraries was somewhat shaky with organizations or university libraries unwilling to invest huge sums of money as they felt this would only be an initial phase of temporary excitement, e-content has slowly but surely made it's way into public domain.

NetLibrary, the first library e-book vendor, was founded in 1999. The company nearly went bankrupt in 2001 but was acquired by OCLC in 2002, then by EBSCO in 2010. Ebrary, established in 2001, originally sold e-books directly to end users but now operates solely as a library vendor[xiv].

The growth of eBooks has also increased in sales of e-readers and since some of them are not very affordable, many libraries, especially libraries in the US, are now offering e-readers preloaded with either with text books, or non-fictional content of academic interest. *"In 2010, 12% of American academic libraries circulated e-readers with pre-loaded e-book files (Library Journal, 2010)... By November 2009, at least eight well-known academic libraries—Duke University, North Carolina State University, Oxford University, Princeton University, Simmons College, Texas A&M, the University of California, and Yale University—had begun to lend Kindles to library patrons (Rodzvilla, 2009)"*.(Ibid.)

In a Springer white paper, "eBooks – Costs and Benefits to Academic and Research Libraries", author Rita A. Renner cites three reasons why libraries need to urgently tread the e-library path. *Firstly*, expanded offerings with digital delivery enabling publishers to create large, cost-effective packages. *Secondly*, expanded usage, since multiple users can access the same eBook at any one given time, simultaneous access is a major factor in eBook acquisitions, particularly in multi-site institutions. Furthermore, by eliminating physical handling and shelving of physical books, eBooks can help reduce administrative costs, thus freeing up librarians to focus their efforts on other tasks[xv].

A picture is clearly emerging that eBooks do offer many advantages on numerous counts (see figure 2), but along with this optimism (since many libraries along with eBooks also offer eBook readers to their members for reading purposes) a new found fear has crept in that many of the readers may download illegal content onto these readers, which may or may not be deleted when the readers are returned back to the library after the loan out period. Author Martin Zimerman of Brooklyn Campus Library, Long Island University, USA feels that "*with the growing popularity of dedicated eBook readers such as the Amazon Kindle, Barnes & Noble) Nook, Sony (NYSE:SNE) eBook Readers, and possibly the upcoming Apple (NASDAQ:AAPL) Tablet, it's getting easier and easier to read digital books. And that could lead to a surge in eBook piracy*"[xvi].

The ever present threat of piracy if very real and ominous for physical books, is even more menacing and imminent in the case of eBooks.

"Piracy is certainly one of the biggest challenges that the publishing industry faces in this digital age. Less than twenty-four hours after Harry Potter and the Goblet of Fire was released, there was a free, pirated version available on the Internet"[xvii].

This is despite the fact that the celebrated author took numerous steps to ensure that e-copies of her print book could not in any way be made available and in fact was involved in a legal battle with American literary website 'Scribd.com' to have her books removed from that site[xviii]. In a focus group discussion held in the IGNOU campus, a research scholar put it succinctly when she said *"In the case of physical book piracy, you have to have a photocopier, paper etc, but in the case of an eBook, once you mail the book or article to a friend, an act of piracy has been committed"*.

3. Research Method

Research method adopted for purposes of study was an extensive review of literature substantiated with in depth interviews with eight students, selected randomly, and two subject experts. One was an expert in cyber law and the other an English language book publisher. Confidentiality was maintained and the students were in no way briefed about the topic of discussion before hand. Questions were mainly short, to the point and only two warm up questions were used after which the interviewer plunged into the topic under study straightaway. Key themes and concepts were highlighted and evaluated which helped reach the conclusions mentioned below.

4. Discussion

Real and imagined threats notwithstanding, the next decade is going to witness a precipitous battle between print books and their electronic counterpart. While the educated and literary minded youth, vacillate between print and eBooks, many publishers still insist that books will remain in the forefront of the battle. Polish author, A.M. Balakar says "*For me, print books have deeply emotional value, an essential part of one's personal story that*

can be shared with friends and family — a quality an eBook simply cannot provide. Hand scribbling on the margins or the front page, underlined sentences, perhaps a torn page; the story of a book which goes through hands of innumerable readers from generation to generation is one of the most intriguing of all"[xix].

Dilevko and Gottlieb examined undergraduates' use of print and online resources. Their study found that undergraduates associated use of printed books with more "high-quality work." Students reported preferences for *"print books containing exactly the required information"* as opposed to e-books containing different but *"good enough"* information, and print books *"were also preferred to the equivalent electronic book, albeit by a much smaller margin.*[xx]*"*

Other studies suggest that "students—especially distance students who cannot access a physical campus library—will use an e-book if it is the easiest option at that moment to save time and money. However, they would prefer to have *a print book to facilitate annotation, bookmarking, highlighting, jumping back and forth between key pages, and other such activities with which most researchers will be familiar*"[xxi].

In the same journal, the author quotes one student as saying *"I like e-books and use them regularly for certain research and ease of access. Since I am doing my Masters online, this is a helpful resource and flows well with my other online coursework. Nevertheless, if I have a choice, I prefer a print book".* (Ibid., 329.)

If the younger generation, who are so tech savvy and immersed in technology from childhood, still prefer print books, it is only to be expected that a previous generation, fed on a diet of books and magazines in their teen and pre-teen years would unswervingly champion the cause of print.

"At the end of the day the book represents a multi-billion pound industry has been growing exponentially for over 100 years, and that's not about to "die" within the next 10"[xxii].

Noted cyber expert Pavan Duggal seems to summarize the whole debate when he says *"At the end of the day, you have to realize the print industry is likely to be impacted. However to say that the print industry is likely to die is a falsity. There will always be a confluence. Print is never going to go away; There will always be a parallel between print and electronic coming side by side. It is only after 30 or 40 years that you can talk about print getting marginalized. So, print will continue to be valuable in third world countries. And internet alone is not the magical solution to end all publishing. So there a lot of issues that we need to address".*

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APPENDIX

FIGURES AND TABLES

Table 1. Advantages and disadvantages of e-books, from the perspective of the individual user.

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Access

+ Access at any time
+ Access from any place where there's an Internet connection
– Need for a display device
– Need for infrastructure (Internet connection, power) to support the display device
– Need for passwords or access codes specific to each platform or vendor
– Recurring expenses (platform charges, device-related expenses, etc.)

Portability

+ Capacity for multiple books on a single device
+ Light weight and small size, if an appropriate device is used
– Fragility of most display devices
– Need to recharge the display device, if a mobile device is used
Content
+ Updating of content
+ Inclusion of audio and video content
– Inability to show content produced in non-compatible file formats
– Instability of content due to frequent updating

Display

+ Availability of spoken-word output
+ Customization of display characteristics (fonts, etc.)
– Limited color range and intensity
– Lower contrast and resolution than print
– Need for multiple devices to support reading and comparison of multiple texts
– Page size limited by device size
– Poor resolution for compatible but non-native file formats (PDF, in particular)

Navigation

+ Hyperlinking, internally and from one document to another
+ Searchable full text
– Inability to flip through pages quickly

Annotations

+ Ability to share notes with other e-book users
– Limited annotation mechanisms (no drawings, diagrams, etc.)

Content-transfer capabilities

+ Ability to copy and paste text
– Difficulty saving entire documents
– Inability to transfer files from one device to another
– Limited or restricted ability to print

Environmental considerations

+ Reduced consumption of paper and binding materials
+ Reduction in environmental costs associated with shipping

– Increase in environmental costs associated with battery use
– Increased consumption of energy and of rare earth minerals

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**Average ebooks chapter downloads 2008 by title and copyright year**
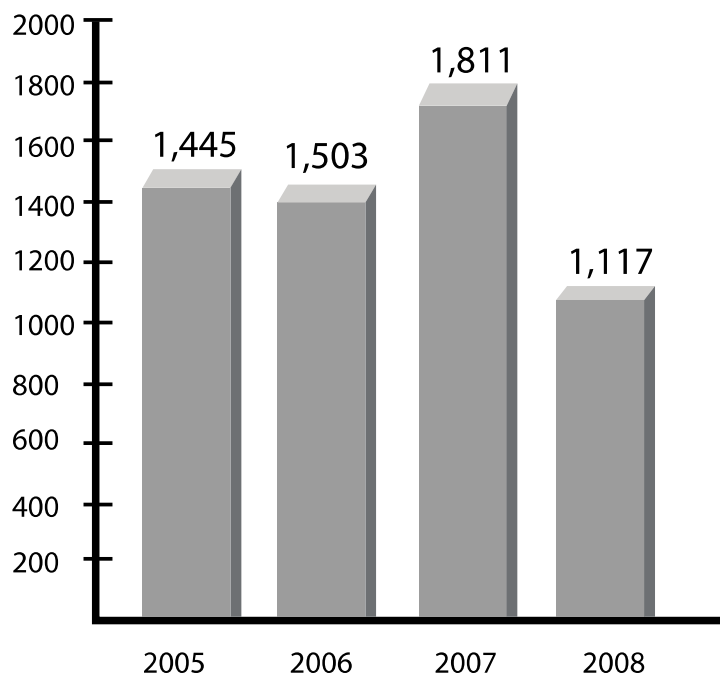
Note: n= 12,953

Figure 1. eBook usage distributed over copyright years
Source: Reprinted from "The future of E-books: Will print disappear? An end user perspective" Van der Velde,Wouter. Ernst, Olaf., 2014, Library Hi Tech, Vol. 27 No. 4, 2009. Emerald Group Publishing Limited
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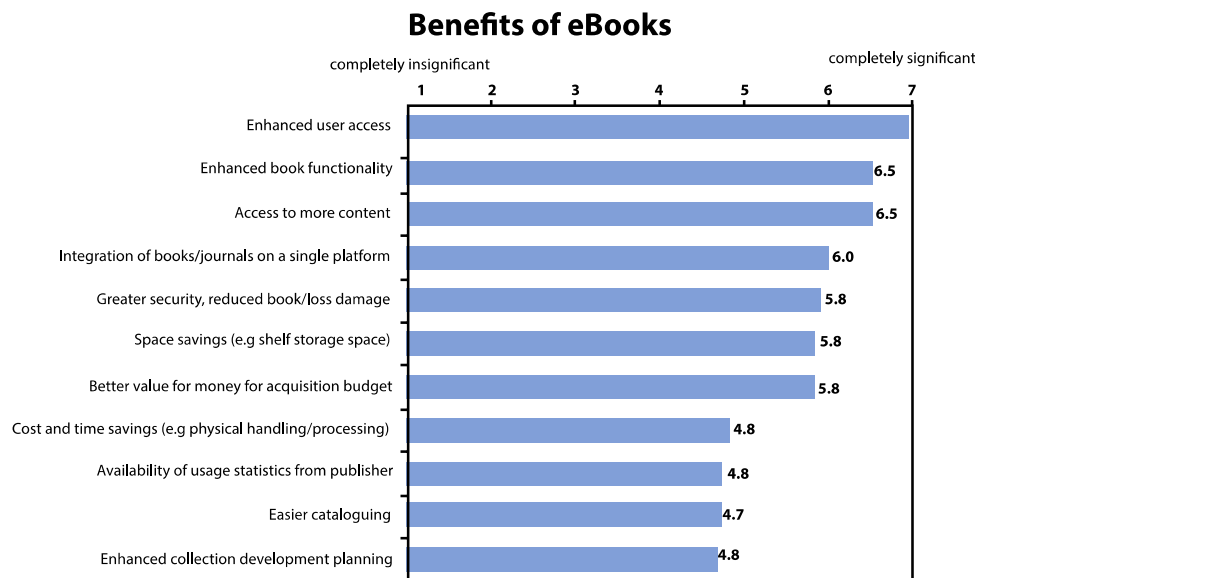
Figure 2. Access and functionality offered clear advantages over traditional print media
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