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E-books: Developments and Policy Considerations

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COMMITTEE FOR INFORMATION, COMPUTER AND COMMUNICATIONS POLICY

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Working Party on the Information Economy

EBOOKS: DEVELOPMENTS AND POLICY CONSIDERATIONS

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English - Or. English

FOREWORD

This report was presented to the Working Party on the Information Economy (WPIE) in December 2011 and was declassified by the Committee for Information, Computer and Communications Policy (ICCP) in March 2012.

The report was prepared by Louisa Gosling (Making Sense Ltd.) with input from Christopher Hemmerlein and Taylor Reynolds of the OECD's Directorate for Science, Technology and Industry.

This report is part of the ICCP's work on digital content. Other studies in the series include online news, public-sector information, film and video, user-created content, mobile content, online computer games, music and scientific publishing. For more information, please visit *www.oecd.org/sti/information-economy* or contact *digitalcontent@oecd.org*.

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MAIN FINDINGS

Introduction

Books are one of the foundations of human society. Their proliferation across the world marked the onset of mass communication and education. Although advances were continually made in their materials, their printing processes, and the businesses behind them, the basic bound format has remained essentially unchanged since antiquity. The book has undergone a massive transformation in a process that began in the 1970s but has just recently gained a strong momentum. Alongside the paper model emerged something entirely different: the electronic book, or "e-book".

The e-book is a book composed in or converted to digital format for display on a computer screen or handheld device.[1] E-books offer several advantages over their printed predecessors and there are many reasons why policy makers should consider policy issues that could hold back their adoption from an economic and social standpoint.

E-books can be purchased, downloaded, and read immediately without having to travel to a bookshop or library. Thousands of e-books can occupy a single e-reader that is smaller and lighter than a traditional hardback title. Works not restricted by copyright can be downloaded for free. The production of e-books requires no paper or ink, and their distribution requires minimal fuel. E-books can often be backed up on a computer or the cloud, making them essentially immune to loss, theft, or damage. Many newer readers can display motion, enlarge text, change fonts, or utilise text-to-speech for the benefit of visually impaired, elderly or dyslectic people.

Independent publishing of e-books offers audiences to writers who have not attracted the attention of a literary agent or publishing house. This can significantly lower the barrier for new writers to promote and sell their work globally.

Yet this new technology is not without its drawbacks. Although tastes and experiences vary widely, some say that e-books do not possess the physical appeal of the cover, paper, and binding of a printed work. Books with large pictures or diagrams are not as visually striking or convenient to view. E-book readers require various toxic substances to produce and are non-biodegradable. Although e-books are as cheap as or cheaper than printed books, e-readers are more expensive even though they are coming down in price. E-books can be read on other devices like computers and smart phones, but e-readers are still the most popular reading device for e-books. E-book formats and file types are still evolving, so developments in technology might render current purchases obsolete and unreadable, a challenge printed books have never posed.

Trends

Figures collected to date by national publishers associations suggest that e-book sales still make up only a small proportion (around 1% for 2010) of book sales in most OECD countries outside the United States. Figures for the United Kingdom[2] suggest a slightly greater percentage of the book market represented by e-books (2-3%).[3] Figures for the United States show e-books representing up to 8% of book sales in 2010.

More notable than absolute revenue or percentage figures, are the recent dramatic rates of *growth* in OECD markets for e-books. On 19 May, 2011, Amazon announced that since April its sales of e-books had overtaken sales of all forms of print books combined. Starting in April it has sold 105 e-books for every 100 print books.[4] This does not include downloads of free Kindle e-books, which if counted, would

push the e-book advantage even higher. Consumers spent an estimated USD 966 million on e-books in 2010. By 2015, the industry is anticipated to nearly triple to almost USD 3 billion.

There are a number of indications that e-books are not replacing demand for print books in the general "trade", or "consumer" category. While there is insufficient data available at this stage to draw any concrete conclusions on trends, some of the recent figures from the industry indicate that e-books are stimulating demand for print books. Contrary to widespread belief, the publishing industry grew in both 2009 and 2010, aided by USD 1.6 billion in sales from e-books. Total estimated revenue for all publishers rose 3.1% in 2010, to USD 27.9 billion, following a 2.5% increase in 2009. E-book sales across all publishing categories rose 29.4% in 2009 and 38.9% in 2010, and accounted for 5.8% of total industry revenue in 2010.[5]

It should also be noted from the outset that the e-book market is not homogeneous. Indeed, the market situation, and trends, for distinct categories of e-books (such as trade, education, reference and professional), are indeed very different. For example, it is reasonable to predict that in the category of reference books, e-books are very likely to displace print books. The scholarly/research market is already highly adapted to e-books and the business model is very different to trade e-books. Textbooks present a very different challenge to scholarly works and the market is still relatively immature due to the, as yet unresolved, question, of the nature of a viable business model. Even within the consumer market, there are significant contrasts between, for example, the children and adult markets.

Markets for online book content are still somewhat defined by the language in which the text is written (and translated, where relevant). Distinct language markets also provide opportunities in markets evolving at slower pace to learn from successful, and unsuccessful, adaptation strategies tried out by those in faster evolving markets. Thus national book publishing industries have had both more time to consider and prepare their adaptation strategies, and more opportunities to learn from successes and failures than was possible in the music industry.

Digital content use is different across countries and across age groups. While North American and European users are more prone to use e-readers and tablets to access e-book content, the Japanese market for e-books has taken a notably different path where users access e-books mainly from mobile phones. In general, the younger generation, already more adapted to technology making multiple, simultaneous demands on their attention, may demand more innovative reading experiences where most of the e-book content available is adapted for short and/or interrupted attention spans.[6]

Policy considerations

Consumer rights with e-books

The essential distinction between permanent and effective ownership of a physical book, and conditional rights of access to the e-book, has, so far, been somewhat obscured by marketing strategies and use of visual images, which tend to present e-books as a superior, but also substitutable, version of the print book product. Given the virtual reality of "traditional books" presented by e-Book platforms, buyers of e-books are likely to confuse their rights (*i.e.* after purchase) with the property rights model for print books. Users may be surprised to find that they are prevented from doing certain things[7] with their e-book, within their private/ personal sphere.

It has been suggested that, with digital rights management (DRM), the consumer's relationship with their selected e-books, even those stored on their own devices[8], may be better described as a "rental", or a "license to access", rather than a "purchase". It would also be in the consumer interest to ensure that information explaining what the DRM is, what it restricts, and why, be highlighted for the buyer, prior to

his/her purchase of the e-book. The policy concern worthy of greatest consideration is arguably consumer protection: transparency, product information, and the risk of misleading consumers. Any material limitations of use rights must be clearly and conspicuously disclosed before the sale of the content.

Interoperability and consumer lock-in

Users who buy e-books are often locking the purchase into a platform or hardware system and this could lead to interoperability issues across platforms and problems with consumer lock-in. The choice of reading device will, to varying degrees, affect the range of e-books available to the reader. The degree of vertical integration which has developed across the supply chain for e-books has created commercial incentives to tie the customer's long term investment in the reading hardware to the content of a particular e-book seller. The risks of customer lock-in and market fragmentation should be considered in this context.

Most e-books sold today use some sort of digital rights management (DRM) restrictions to limit copying, printing, and sharing. DRM has met frequent protest from consumers and civil society groups. Publishers and retailers claim that DRM is necessary in order to limit copyright infringement and ensure their legitimate claims to revenue for their e-books. Others claim, however, that DRM stifles innovation and stands counter to the tradition of sharing books that has existed since time immemorial.

Some have argued that relevant e-book platforms should collaborate on a standard for DRM. Standard setting can be enormously beneficial to consumers, but some commercial stakeholders are uncomfortable about aspects of the process.

Distribution rights and consumer "lock-out"

E-book markets are currently restricted by an established system of publisher sales and distribution rights which are confined to specific geographical regions, irrespective of the languages of the inhabitants and or visitors to that region. While the "region" in question for sales of print books is the location of the physical point of sale, for e-books it is defined by the location of the online purchaser. Consumers of globally accessible online services are increasingly frustrated and confused by being refused the right to buy a book from the UK Amazon store (whose e-book lists are visible globally) simply because they are geographically located outside the UK. Established book publishers tend to defend the existing system whereby "foreign" distribution rights need to be specifically purchased for each local market. They argue that local publishers who will invest in management and marketing of the title for a specific local market have the right to exclusive distribution rights in that region in order to ensure a reasonable chance of recouping these costs in the book sales. It is not clear that these supposed publisher benefits would outweigh the obvious benefits to authors and consumers of establishing worldwide distribution rights for e-books purchased online.

Competitive structure for e-books

Pricing

The fixing of book prices by publishers, under the so-called "agency model" for e-books, is under scrutiny by competition authorities in both the United States and the European Commission. In a number of European countries, fixed book pricing (FBP) is supported by government policy as an instrument to protect culturally valuable content, diversity and smaller, independent booksellers. The extent to which e-books are now covered by FBP laws or business agreements is still being clarified in a number of OECD countries. Countries where e-books are explicitly recognised to be subject to fixed pricing arrangements include Germany, France, the Netherlands, Norway and Spain. The continued government support for FBP in OECD economies today is still based on a number of different public interest, and "cultural" considerations which are seen to justify the explicit restriction of free market forces.[9] Some of the key

questions that must be addressed are: Does the agency model represent horizontal price collusion and a violation of competition rules? Is retail price discounting in the longer-term interests of the consumer?

Taxation issues

A number of OECD economies have value added tax (VAT) legislation which applies a reduced rate to books. Mostly the law still applies only to print books, which put e-books at a significant disadvantage if they are considered to be competitors in the same market. It may be argued that this constitutes a market distortion and that policy makers should therefore consider harmonising the VAT rate across physical and digital media for books. An alternative approach, which has been taken by Sweden, is to distinguish the VAT rate applied to the book "goods" (*i.e*. the tangible book products – be they print or digital format - purchased "over-the-counter"), from that applied to the book "services" (which includes the online purchase and provision of access to e-books).[10]

Privacy

Data gleaned from e-book readers has led to some innovative developments that are beneficial to users, such as automatically highlighting passages in a text that have been underlined by other readers. The data supporting these innovations are often collected from e-readers and e-book software without the full understanding of the reader. With cloud-based e-book storage and streaming services, companies can also track and monitor reading behaviour (what is read, when, and for how long).

Legal challenges on the basis of data protection and privacy legislation may result in precedent setting cases and/or policy reforms in this area. However, in the short term, policy consideration could be given to ensuring better consumer information and transparency is provided by the e-book suppliers who provide the customer interface. Public awareness and education campaigns about personal profiling and privacy implications may also be a policy consideration in this context.

Copyright and piracy

Whereas copying and, even limited, redistribution of physical, printed, bound books is difficult and expensive; copying and extensive, even global, redistribution of e-books incurs little or no cost and requires only limited technological knowhow to achieve. Publishers and governments are taking steps to ensure the copyright is protected for books in the digital sphere because piracy can undermine the sustainability of legitimate content distribution business models.

Problems and objections arise when technological restrictions on use of e-books go beyond what is generally understood as the prevention of harmful criminal activities, and interfere with the ability of the purchaser to exercise property rights in the e-book in the same way as he/she can with a physical book and exercise the digital potential of the e-book to expand its benefit and usefulness for public, social, educational or research purposes.[11]

Therefore, some argue that the most effective (if not only) way for rights holders to fight the threat of e-book piracy is to focus, instead, on ensuring that the legal e-book offer is generally preferable to the pirated version. That is, legal books need to bring more value to the consumer than pirated ones.

This concerns offering superior quality in areas such as formatting, display and readability, as well as tying in value-added services such as access to related content/feedback from the author, invitations to author readings, rights to purchase printed versions at lower prices, etc. It also involves consideration of the availability of the (albeit inferior) free pirate versions in setting prices for the legitimate e-book. This argument would also point out that, too many security obstacles on access to, and use of, an e-book, may also make it less user friendly (to purchase and read), thus favouring the illegal download.

Consumer lending of their books

Some e-book platforms use DRM to prevent the transfer of downloaded e-book content between devices and this significantly alters users' ability to share or lend e-books to others. The purchase of an e-book is possibly best understood as the purchase of a conditional right of access to that digital content so from the supplier's point of view, "lending", effectively, means granting additional access rights for free. Demand for lending options represents an opportunity for competitive advantage among e-book providers and the market is evolving. At a minimum, policy makers should ensure that users are aware of lending restrictions when purchasing access to e-books. They may also consider policies that promote the legal sharing of content in a way that is consistent with physical books.

Library lending

Many consider that the knowledge and literature stored in libraries is of critical cultural importance and that digital access to it should be provided as an open and public service. This importance is highlighted in national legislation that grants libraries special lending rights. While e-books can help increase access to information, DRM represents a significant obstacle to lending of e-books and challenges the exercise of such rights by libraries which could be considered a public interest concern in the foreseeable future.

The DRM generally embedded in many e-books being produced today does not allow for the kind of free and open access provided by, for example, public libraries. However, most e-editions in scholarly libraries are free of DRM.

The growing emphasis on online services enhances the visibility of the larger public libraries, which have built up extensive collections of digital resources, but the cost implications for smaller libraries warrant further examination. In particular, any significant shift from printed books to e-books could impose additional costs on libraries. Because e-books are generally made available for lending only to registered users at a particular library, libraries may need to purchase multiple licences rather than sharing resources through interlibrary loans. Costs may also be affected if territorial Digital Rights Management (DRM) restricts libraries to purchasing geographically-specific editions of books.

There is, unfortunately, insufficient information and transparency about the current, or future, functioning of commercial DRM systems, to allow a balanced analysis of risks, or harms which might support a case for government action. Policy-makers might need to consider whether the above mentioned concerns regarding consumer protection and competition are sufficient grounds for insisting on public scrutiny. In general, this is an area that deserves continued attention.

Accessibility

E-books not only provide new options for online access, carrying and storing of books for the mass market, they can also be utilised to dramatically expand the choices of literature and information accessible to those whose disability restricts their range of sensory perception of book content.

The increasingly wide-spread availability of digital book content, thus, has the potential to dramatically improve the amount and range of accessible material available to people suffering from "print disabilities".[12] The flexibility of digitalised data allows it to be simultaneously "translated" from a visual text display into voice-audio mode. The digital text of a book can also be "translated" into a braille version of the book. Finally, the electronic display of digital text can be shaped and tailored, by design, to suit the needs of particular visual or mental conditions.

However, currently only a few e-readers actually incorporate those features (change of contrast, character expansion etc.) which are vital to maximising accessibility for the print-impaired. Alongside this, many e-readers are incompatible with assistive technologies.

Policy-makers should consider mechanisms for encouraging e-reader manufacturers to incorporate accessibility features and compatible standards in order that people with print disabilities may reap the potential benefits of e-books.

Furthermore, new software developments to allow the richer features of "enhanced" e-books and apps are posing a new threat to the availability of accessible e-books. Enhancements such as more extensive use of images and graphics, multimedia and interactivity complicate and often prevent support of the capabilities which are vital to provide accessibility for the significant proportion of OECD populations challenged by print disabilities. To address this problem, the newest version of the open formatting standard EPUB3 has been developed in a way which assures continued compatibility with the relevant assistive technologies.

OECD governments should consider options for encouraging publishers to make e-books available in formats (such as EPUB3) which support the software developed for accessibility for people with print disabilities.

The need for more data

At this stage in the evolution of a small, but dramatically expanding e-book market, the organisation and co-ordination of relevant data, at both national and international level, should be considered a priority. Cross-country analyses of various economic impacts, emerging trends and innovative models for commercial and policy adaptation represent vital inputs to effective policy thinking.

E-BOOK ECOSYSTEM

It is no exaggeration to say that books are one of the foundations of human society. A full analysis of their full impact would exceed the scope of this paper, but clearly books have shaped the curve of human history. Their proliferation across the world marked the onset of mass communication and education. Their prose and verse have become hallmarks of our culture, their writers our heroes.

Although advances were continually made in their materials, their printing processes, and the businesses behind them, the basic bound format remained essentially unchanged since antiquity. In a process that began in the 1970s and only really took off in the last few years, the book underwent a massive transformation. Alongside the paper model emerged something entirely different: the electronic book, or "e-book".

The e-book is a book composed in or converted to digital format for display on a computer screen or handheld device.[13] But of course it is more than that. The e-book has the potential to fundamentally change the way that books and other publications are consumed, as well as the businesses and legal structures that surround them.

E-books offer several advantages over their printed predecessors. They can be purchased, downloaded, and read immediately without having to travel to a bookshop or library. Thousands of e-books can occupy a single e-reader that is smaller and lighter than a traditional hardback title. Works with expired copyrights can be downloaded for free. The production of e-books requires no paper or ink, and their distribution requires minimal fuel. E-books can often be backed up on a computer or the cloud, making them essentially immune to loss, theft, or damage. Many newer readers can display motion, enlarge text, change fonts, or utilise text-to-speech for the benefit of the visually impaired, elderly or dyslectic people. Independent publishing of e-books offers audiences to writers who have not attracted the attention of a literary agent or publishing house.

Yet this new technology is not without its drawbacks. Although tastes and experiences vary widely, some say that e-books do not possess the physical appeal of the cover, paper, and binding of a printed work. At this stage books with large pictures or diagrams are not as visually striking or convenient to view on dedicated e-readers. E-book readers require various toxic substances to produce and are non-biodegradable. Although e-books may be as cheap as or cheaper to buy than printed books, e-readers are much more expensive. E-books can be read on other devices like computers and smart phones, but e-readers are still the most popular reading device for e-books. E-book formats and file types are still evolving, so developments in technology might render current purchases obsolete and unreadable, a challenge printed books have never posed.

This research examines the development of e-books in terms of the ecosystem of content, hardware and software. It also looks at emerging policy issues tied to e-books that policy makers will likely confront.

Definition

For the purposes of this report, an e-book is defined as a book-length publication, consisting of text (and, sometimes, images) in digital form, formatted to be read on the electronic screens of user devices such as e-readers, computers and mobile phones.

Content

An e-book is a "publication", meaning its content is distributed, and made available, to the public (for either lease or sale).

"Publishing" refers to the set of processes involved in transforming the raw content of a book (as created by the author) into the publically available product for sale (or lease) to consumers. It includes editing and formatting of the text, packaging, publicity and marketing of the book product, registration and administration of copyright, and handling of commercial and practical arrangements for distribution of material to points of sale.

Publishers also hold the legal rights and responsibilities for the content they publish. In particular:

- They establish copyright, and collect and redistribute sales royalties
- They hold the legal liability for any published content found to be unlawful (*e.g.* for reasons of defamation, copyright infringement, or indecency)

In this way, authors of book content have, for hundreds of years, handed over editorial, legal and intellectual property rights, to those with the resources required to produce and distribute it to "the public". The arrangement relies, in particular, on the publisher's control of:

- The significant resources required for production, storage and distribution of books
- The relationships with wholesale distribution networks and booksellers
- Publicity and marketing campaigns
- Advance payments for content creation[14]
- Responsibility for legal and regulatory compliance (copyright and content censorship).[15]

With their privileged access to limited resources, on the one hand, and their role as judge and arbiter of standards for publically available content, on the other, publishers are positioned as the gatekeepers for the book industry. They have effectively assumed both the responsibility, and the right, to select, and to shape, the content of the printed reading material distributed for public consumption.

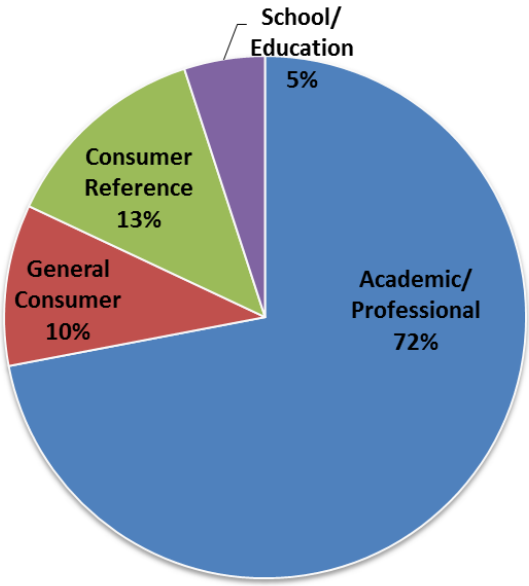
The global book publishing industry is worth an estimated EUR 80 billion, or USD 119 billion.[16] It is led in most ways by six large conglomerate publishers: Random House, Penguin Putnam, HarperCollins, Holtzbrinck, Hachette, and Simon and Schuster. In addition to these six, the industry is composed of 300 to 400 medium-sized publishers, and over 80 000 small or self-publishers. The industry is highly concentrated; the top 50 companies generate about 80% of revenue.

Publishers produce books for general reading ("trade" books geared to adults); text, professional, technical, children's, and reference books. The breakdown of the types of books produced varies across countries but in the United States, trade books account for 25% of the market, textbooks 25%, and professional books 20%.[17] About 150 000 new books are published in the United States every year; however, most are low-volume products. The number of books produced by major trade publishers and university presses is closer to 40 000.

While growth of e-book publications of "consumer" or "trade" books is the main focus of public and policy attention, it is actually professional, academic and textbooks[18] which represent the majority of e-book markets in countries such as the United States and the United Kingdom (see Figure 1). Trade books account for only 10% of digital book products in the United Kingdom. In the United States non-"trade" books hold about 76% of the e-book market.[19]

Figure 1. Breakdown of digital books by type

UK Publisher Sales of Digital Products, 2010



Source: The PA Statistics Yearbook 2010, 4 May 2011, ISBN: 978-0-85386-335-7

Operations of publishers include acquiring content, managing relationships with authors, editing, designing books, manufacturing, and marketing. Publishers acquire content by contracting with authors to produce new work, buying finished manuscripts offered for sale, or acquiring the rights to existing content through licensing agreements.

The processes involved in publication of an e-book represent a profound change to the established publishing model outlined in the paragraphs above. While e-books and printed books share a significant proportion of common costs, e-book publishing requires new technical skills and know-how, specialised software expertise, management and design of hosting facilities, as well as new commercial relationships, negotiations and networks. E-book publishing bypasses some of the core competences and resources of the traditional publishing house, and demands new ones which, arguably, could be taken on by actors at other stages in the value chain (authors, agents, distributers). Most critically, however, e-book

publishing bypasses the critical reliance, of both ends of the book value chain, on the resources held by the gatekeeper in the middle.

E-books, thus, present a potential paradigm shift in the accepted relationship between content creator and publisher. It effects hitherto unquestioned assumptions about the nature, and the role, of the publisher in the value chain for the book industry. The disruption implied by such a radical departure has received significant attention over the past couple of years, in the trade and general press, as well as keynote presentations and events in recent international book fairs and conferences. The amount and degree of concern, relative to the still modest size, and early stage, in the evolution of e-book markets, is notable. It has, in any case, served as a useful trigger for early implementation of adaptation strategies in the publishing industry.

The origin of the e-book can be traced back to the initiation of Project Gutenberg in 1971. This volunteer effort sought to digitise and archive cultural works to "encourage the creation and distribution of e-books." As of November 2010, Project Gutenberg claimed over 34 000 items in its collection, most of them full texts of public domain books. E-books remained ostensibly bound to computers until 1998, when the Rocket e-book and Softbook were released by NuVoMedia and Softbook Press, respectively. These were the first dedicated devices that made e-books easily accessible and portable.

The modern evolution of the e-book industry for the general consumer market[20] was sparked by the launch of the Sony e-reader in 2006 and the 2007 launch of the Kindle e-reader from Amazon.com. In 2009, book retailer Barnes & Noble launched a competing e-reader, the Nook. Competition was further intensified with the 2010 launch of Apple's iPad a multi-purpose device with e-reader capability.

Whilst they may not replace print books, the importance of offering e-books and online purchasing, alongside provision of print versions is disruptive to the established traditions of both the book publishing and book selling industries. The giant book retailer Borders in the United States recently filed for bankruptcy,[21] alongside the recent demise of many independent booksellers.[22] However, authors, agents, and publishers, as well as bricks-and-mortar book sellers, still possess skills in demand. Adjustment to the new economic realities of the e-book landscape is most likely to involve strategies to complement, rather than substitute, the traditional resources and services. Already, many of the major publishing houses have invested in various types of adaptive strategies which already set them apart from their more vulnerable counterparts in the music industry.

The earlier experience of the music industry with digital disruption has served as a useful warning bell for book publishers.[23] It is evident that the book industry is already focusing attention, investment and efforts on adaptation strategies. Whilst recognising the threat of digital disruption, trade reports and press would suggest that book publishers and retailers generally seem more prepared than their music counterparts, to embrace the inevitability of the change, to learn about it and be a part of it.

Unlike the suddenly borderless, globalised access and demand for online musical content, markets for book content, whether digital or not, are still structured and defined by language. By contrast with the more universal downturn in the music industry, the continuing relevance of established market boundaries for books can act to insulate the potential run-away effects of particular crises of commercial instability, failure and decline, and prevent the negative impact going global. Distinct language markets also provide opportunities, for those evolving at a slower pace to learn from successful, and unsuccessful, adaptation strategies tried out by those in faster evolving markets. Thus the book publishing industry has both more time to consider and prepare their adaptation strategies, and more opportunities to learn from successes and failures in other, more advanced, e-book markets.

Publication and sales of other forms of written content, such as magazines and newspapers, are, likewise, in a position to benefit from the structure of distinct, language bound markets, and the relatively gradual evolution of the online, digital form of such publications. Analysis of these factors, as a counterweight to the risks and uncertainty posed by digital disruption of newspaper and magazine markets, could be used to complement earlier OECD work in this area.[24]

Software

E-book formats

E-books can appear in a variety of formats. These include file types familiar to most computer users such as plain text, hypertext mark-up language (HTML), and Portable Document Format (PDF); as well as formats developed specifically for use on e-reading devices such as EPUB and AZW.

PDF

In 1993 the commercial software company Adobe Systems created the Portable Document Format (PDF). It is a digital form for representing electronic documents which allows users "to exchange and view electronic documents independent of the environment in which they were created or the environment in which they are viewed".[25] Originally a propriety format, it was officially released as an open standard on 1 July 2008. For non-professional users, PDF e-books are the easiest to make and distribute. They may also be converted to EPUB or AZW (for Kindle) formats by uploading PDF files to e-book sites providing free conversion software for automatic conversion.

EPUB

In September 1999 the Open eBook Publication structure (OEB) was released by the Open eBook Forum as a free and open e-book formatting standard. This was superseded in 2007 by the electronic publication standard EPUB. EPUB is now the official open standard of the International Digital Publishing Forum (IDPF).

The EPUB format can now be read by most applications running on e-readers, and/or available for computer, tablet and smart phone devices. This includes: the Kobo e-reader, Apple's i-Books app running on iOS devices (such as the iPhone, iPod Touch and iPad), Barnes and Noble Nook, Sony Reader, Adobe Digital Editions, and on Android phones, Windows Mobile and Windows Phone 7. The important exception is Amazon Kindle devices which are designed to read only those e-books formatted in Amazon's proprietary AZW format, although some have suggested that the new Amazon Kindle Fire could potentially run applications that could read EPUB formats.

AZW

With the launch of the Kindle e-book reader in 2007, Amazon created the proprietary format, AZW. It is based on the original Mobipocket standard, with a unique serial number scheme and its own digital rights management (DRM) formatting. Amazon has developed a series of applications that allow Kindle users to access their Kindle Store libraries on other reading devices (in particular on those running iOS[26] and Android). The Kindle is the only mainstream e-reader on the market today that maintains a proprietary format and does not support EPUB. In recent years, there has been a general industry movement to embrace the EPUB format but Amazon has largely resisted.

HTML5

The Google bookstore provides access to e-books in HTML format which, once purchased, are stored in the "cloud". When the user wishes to read a particular e-book, it is streamed rather than downloaded, to the user's device. They may be "read" by devices with an appropriate web browser (tablet, desktop or laptop computer, smartphone), or by dedicated e-readers running applications to read EPUB.[27]

Digital rights management (DRM)

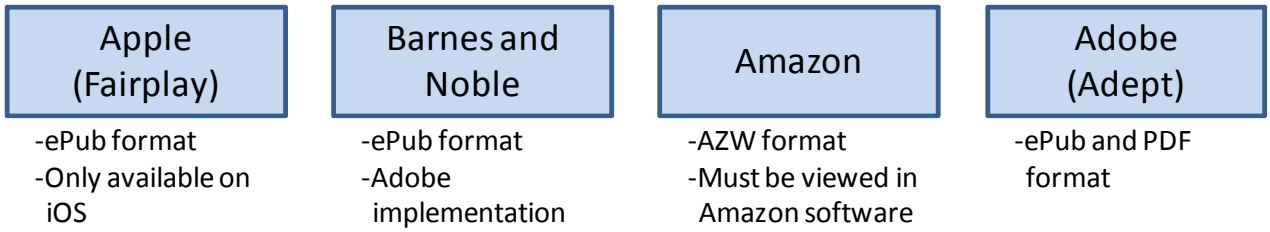
With the notable exception of the scholarly market, most e-books sold today use some sort of digital rights management (DRM) restrictions to limit copying, printing, and sharing. DRM has met frequent protest from consumers and civil society groups. Publishers and retailers claim that DRM is necessary in order to limit copyright infringement and ensure their legitimate claims to revenue for their e-books. Others claim, however, that DRM stifles innovation and stands counter to the tradition of sharing books that has existed since time immemorial.

DRM significantly alters the possibilities of customer use of an e-book purchase compared to "normal" consumer expectations more familiar with buying physical books. This includes:

- The right to make personal copies.
- Provisions for persons to lend copies to friends.
- Provisions for service discontinuance.
- Provisions for technological upgrading of the platform which may render users' hardware and/or software obsolete.

There are four primary e-book DRM schemes at present (see Figure 2). Apple's Fairplay DRM is applied to EPUBs, and can currently only be read by Apple's iBooks app on iOS devices. Barnes & Noble's DRM scheme is implemented by Adobe, and is applied to EPUBs. Amazon's DRM is an adaption of the original Mobipocket encryption, and is applied to Amazon's AZW format e-books. Adobe's Adept DRM is applied to EPUBs and PDFs, and can be read by several third-party e-book readers. Some critics point out that Adobe, by promoting its flavour of encryption on top of the open EPUB standard, is promoting a version of vendor lock-in which overrides the objective of the open standard.

Figure 2. Digital rights management technologies for e-books



The DRM regime as it exists today ties the consumer investment in a particular e-reader device to the particular range of e-book titles provided by the related e-book. While e-book platforms, such as Amazon-Kindle and Barnes & Noble-Nook, have now developed applications for alternative user devices

(such as tablets and mobile phones), to access and display the e-books provided by their respective e-book stores, they do not allow their own e-readers to access alternative e-book stores.

Industry watchers have speculated that the DRM regime for e-books will follow the path taken by digital music. When Apple's revolutionary iTunes music store debuted in 2003, the music it sold was similarly restricted to a finite number of playing devices. Amazon débuted its own digital music store in 2007, featuring variable pricing and fully DRM-free music for sale. Perhaps as a response, Apple announced in 2009 that all of the music sold through the iTunes store would also be DRM-free. There are some signs that e-books are heading in a similar direction. Amazon, Apple and Barnes & Noble now all allow publishers to opt out of DRM. Apple even defaults to omitting DRM, although it takes only one click for a publisher to restore the file protection. Adobe's DRM for EPUB lets e-book readers register up to six desktop and six handheld devices on which content can be shared without restriction. There are also signs that retailers of digital content (including e-books) may now be obscuring the presence of DRM on their products.

Hardware

E-books may be displayed and read on a number of user devices, including computers (PC/Mac/laptop/desktop), "tablets",[28] mobile phones and dedicated e-readers.[29]

Tablets

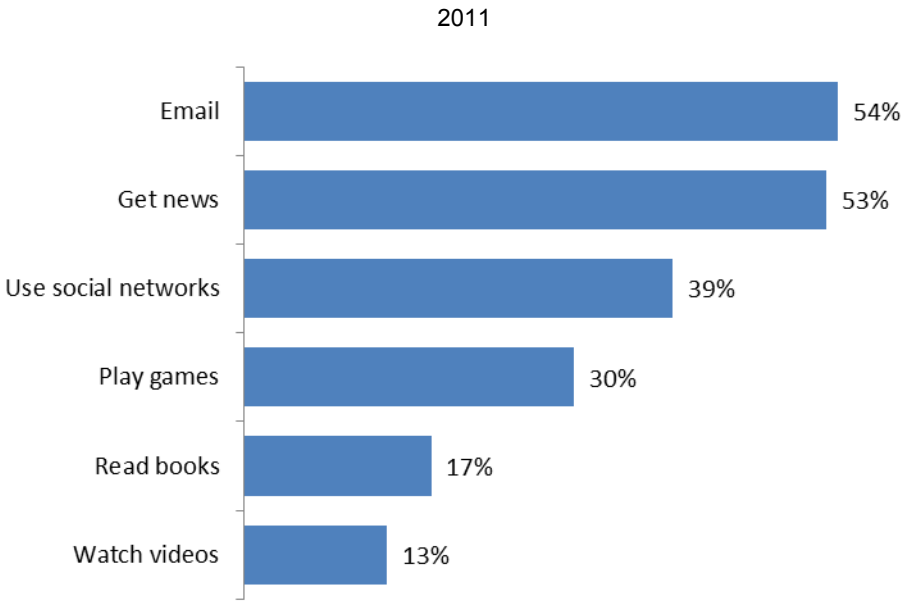
Tablets are understood as portable devices which provide a platform of converged services, only one of which is e-reading. They also run specialised applications, and give online access to a number of other information and entertainment services.

The Apple iPad, for example, includes Internet browsing (Safari), e-mail, chat, music (iTunes), gaming, and books (iBooks). Apple's iPad was released in 2010 and is clearly the global market leader (representing almost 90% of the worldwide tablet market). The iPad runs a range of applications for reading e-books in EPUB, PDF and HTML formats. It runs applications to access and read Kindle books (in AZW format), but applies the Apple "in-app purchasing rules" – taking 30% of revenues on all Kindle purchases made from the iOS application. The iPad allows both Wi-Fi and 3G network access.

In September 2011 Amazon announced its own tablet device, the Kindle Fire. It provides web browsing and access to the Kindle store as well as Kindle's "cloud store". It does not, however, run applications for reading e-books in the open e-publishing standard EPUB natively, although some have suggested that apps running on the device could be used to read EPUB formats.

Book reading on tablets is becoming an increasingly important activity for consumers but it still trails behind other uses of the devices in certain countries (see Figure 3).

Figure 3. Use of tablets in the United States for e-reading



Source: OECD adapted from Pew Research Centre's Project for Excellence in Journalism, 2011

Mobile Phones

Applications have been developed for accessing e-book stores and reading e-books on smart phones running windows, Android and Apple operating systems. The small screen size and LED backlighting generally make these devices a less-popular option for lengthier, more concentrated reading sessions. However, they are proving to be very popular for lighter, shorter e-reading sessions, and for readers on the move such as commuters (Box 1).

Box 1. Japan: Mobile phones and e-books

The Japanese market for e-books has taken a notably different path from that of the United States and Western European countries. Its significant growth over the last decade has been focused on mobile phones as reading devices and comics and serialised novellas as content.

There was an early introduction of e-reading devices by Sony in the early 1990's,[30] but the market had effectively dried up within a few years. Arguably this failure came down to lack of portability on the one hand, and lack of content on the other. During the next ten years the market's attention, as regards to both user devices and content services, was focused on the rapid and massive take-up of mobile phones, and more recently, of 3G and smart phones.

A further factor which has a strong influence on the Japanese market for, specifically, mobile access to their digital content, is the huge percentage of the population spending significant amounts of time commuting. It has been calculated the average time spent on commuting per week for the working population of Japan is 43 hours.[31]

In this context the e-book markets for both serialised mobile phone novellas,[32] or "keitai shosetsu"; and comic-books, "Manga" [33] are booming. With mobile applications developed specifically for this kind of content, they are well adapted for both the small screen size of the phone device, and the short time span of their target readers (the travelling commuter, on the one hand, and teenagers, on the other).

The market for e-books that require more extended periods of concentrated reading, is showing little growth by comparison. The number of Japanese language e-book titles (*i.e.* non comic/magazine) has not grown significantly over the past year. [34] "There seems to be little significant advance in broadening the e-book market customer base in Japan". This is reflected in the, as yet, relatively low consumption of dedicated reading devices of which provide the larger non-LED screens adapted for comfortable reading over longer periods required for the reading longer, more literary or intellectual content.

E-readers

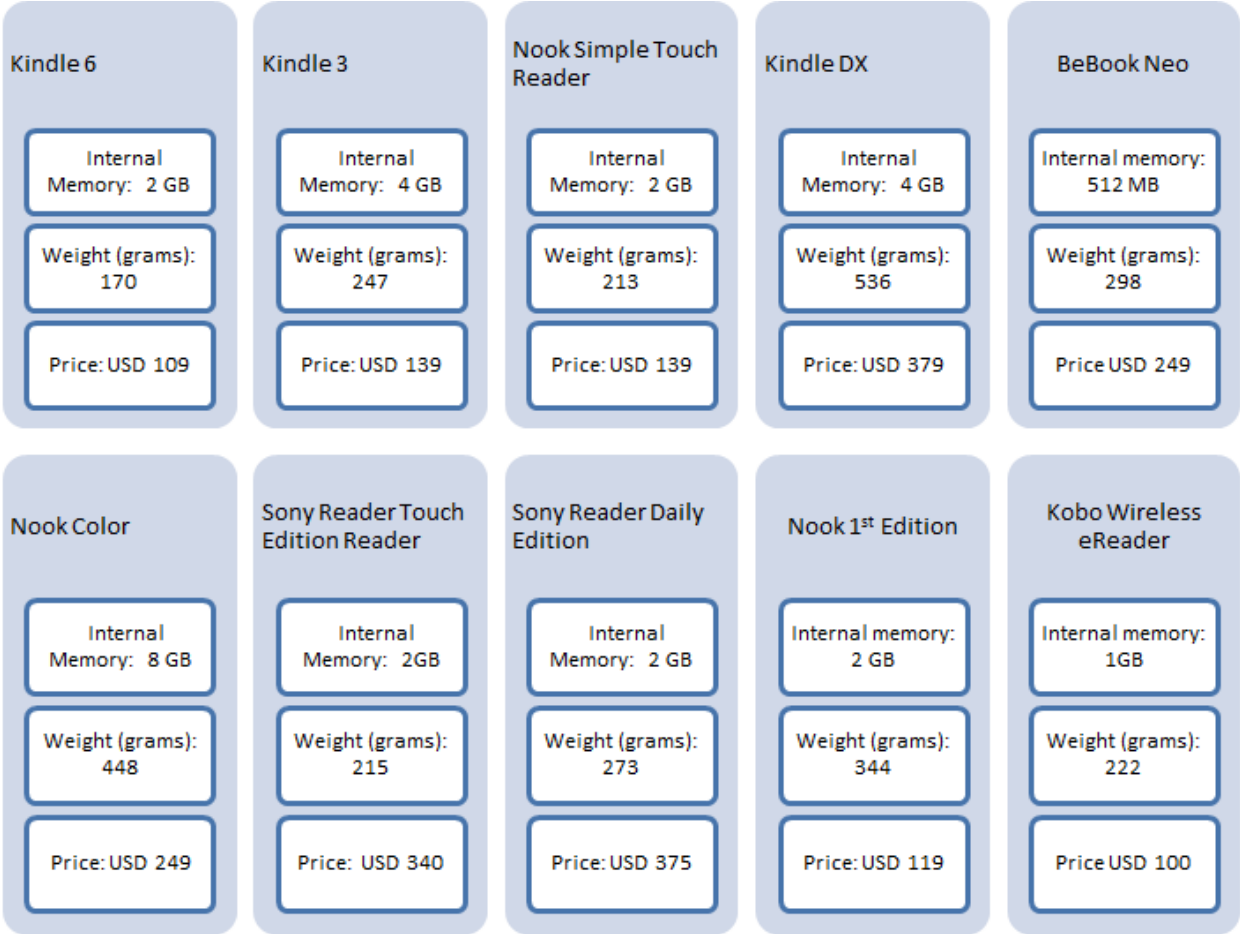
E-readers are user devices dedicated to the services of accessing, storing and reading of e-books. They provide online access[35] to e-book stores, which are often commercially linked to the hardware manufacturer, and memory resources capable of storing thousands of purchased e-books. The screens are adapted for comfortable reading over long time periods by using "e-ink" and "e-paper" technology to replace LED lighting which can cause eye fatigue. E-book formats are displayed to mimic the page, and page turning experience of a paper book. A comparison of e-readers is given in Figure 4.

It is notable that, while the history of the e-book and the technology enabling both its production and consumption goes back at least 40 years, most OECD markets for this particular type of digital content have actually remained undeveloped for most of that time.[36] It has become evident that a primary market driver (or, at least, trigger) for the quite sudden and dramatic growth in demand for e-books which started in the United States in 2007, was the release of a new and dedicated, reading device. Demand has continued to increase with the release of new, competing devices for reading e-books.

Concentrated only on enabling the experience of book reading, it offered only some of the benefits and functionality of electronically manipulated digital content.[37] However, crucially, it also offered the familiarity and comfort of a reading experience which effectively mimicked that of the traditional physical book. Ironically, despite the technological potential[38] of digitisation to transform and extend the experience of reading text into a richer multi-media experience,[39] the dedicated e-reader met an apparent demand for just the opposite. In contrast to the market for increasingly convergent smart-phone devices, e-readers clearly appealed to a book-reading market which just wanted to read books, in old-fashioned, paginated book text format, and without interference.

Figure 4. E-reader comparisons

November 2011, memory, weight, price (USD in United States market)



As their names would suggest, E-ink and E-paper are innovations specifically developed to give the electronic display of text on the screen of an e-reader a look and feel which more closely resembles physical print on paper. In particular, the "e-paper" (on which the text is displayed) reflects light in the same way that real paper does. Therefore, unlike laptops and tablets, e-reader screens may be read outdoors and in direct sunlight. Unlike conventional backlit flat panel displays, "e-ink" allows the text to be displayed and read without backlighting (see Figure 5). It can hold static text, as a stable image, indefinitely, without using electricity (unlike conventional displays which need to be constantly refreshed). The stability of the text being displayed, and the absence of backlighting, significantly reduces the problems of discomfort and eye-fatigue normally associated with reading from computer screens for any length of time. E-ink/e-paper technology was designed to display text in black and white. A number of colour e-readers, with image capabilities, have recently been released, but the technology is still at an early stage and there is no consensus as yet as to how it will develop.

Figure 5. E-Ink and LCD comparison

Magnified at 25x

E Ink LCD

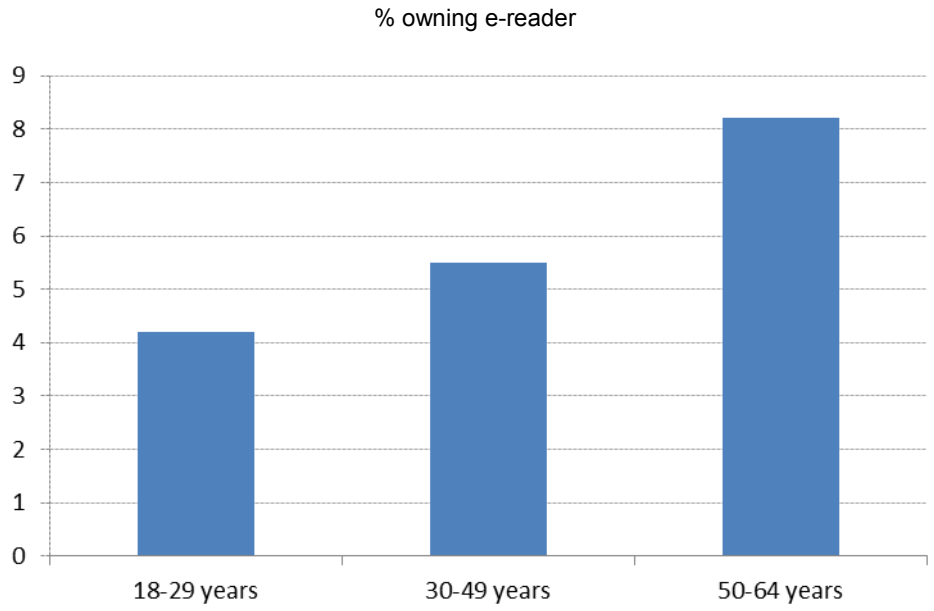
Source: www.eink.com/readable.html

Other important adaptations of e-readers to book reading include:

- Extended battery life and extremely efficient use of energy.
- Very small size and light weight given the large memory capacity.

The quasi-nostalgic attachment of this first wave of e-book buyers, to the analogue experience of the book, may well turn out to be simply a temporary "fad". The dedicated e-reader provided a familiarity and simplicity which may have been a necessary trigger to launch the growth of a major market for e-books. However, the trigger was, perhaps, that it provided a bridge between one generation of readers and another. Market research shows that older consumers are more likely to own an e-book reader than younger ones. For example, 6% of over-55s in the United States own an e-book reader, compared with 5% of those aged 18-24.[40] See Figure 6.

Figure 6. United States: Percentage of population groups who own an e-reader, by age group, 2009



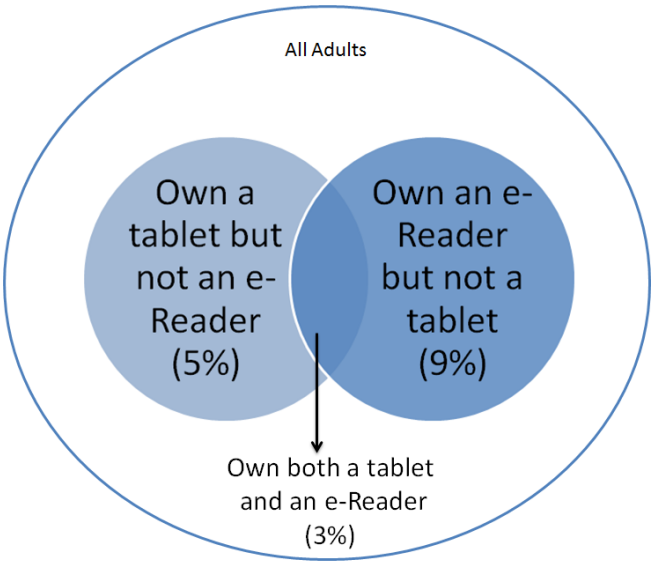
Source: Pew Research Center's Internet & American Life Project Survey, 18 August 14 September, 2009. N=2 253 adults 18 and older

The younger generation, already more adapted to technology making multiple, simultaneous demands on their attention, may demand more innovative reading experiences. It may be poignant that the e-book market with, so far, the greatest success in attracting the younger reader is in Japan. In this case the reading device is not "dedicated",[41] and most of the e-book content available is adapted for short and/or interrupted attention spans.[42]

It is yet to be seen whether the more recently[43] released "tablets"[44] will challenge the leading e-readers as preferred reading device for e-books. It may logically be deduced that the dedicated reader is more suited to extended reading, by more avid readers; and the tablet better adapted for quicker, casual reading sessions and "multitasking". While e-books are increasingly read on dedicated hardware devices known as e-readers or e-book devices, they may also be read on tablets, certain mobile phones[45] and on personal computers.

Indeed, Pew Research in the United States found that a small but significant portion of users actually own multiple devices capable of displaying e-books (see Figure 7).

Figure 7. E-reader device ownership in the United States



Source: Pew Research

Perhaps the most critical factor behind the consumer's choice of device is access to content. As explained in the discussion below, the choice of reading device will, to varying degrees, affect the range of e-books available to the reader. The degree of vertical integration which has developed across the supply chain for e-books has created commercial incentives to tie the customer's long term investment in the reading hardware to the content of a particular e-book seller. The risks of customer lock-in and market fragmentation should be considered in this context.

As is the case for other digital content markets such as pay TV, the consumer's primary interest is in the choice of content available.[46] Digitalisation and online access has the potential to expand this choice, almost endlessly. Commercial incentives created by vertical integration will tend to restrict this choice, thereby limiting the potential benefits of digital content just as the technology is made available to fulfil it.

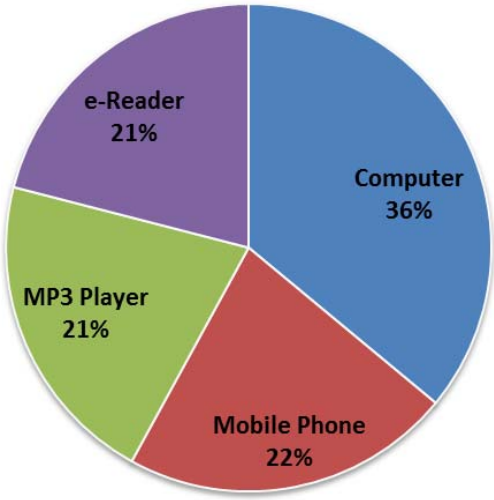
The e-reader market

The "Kindle" e-reader was launched by Amazon, in the United States in 2007, together with the Kindle e-book store. In Anglo-Saxon markets it has been recognised as the turning point in the "hockey stick" market growth curve[47] and is still the market leader for e-readers globally.

Following the lead set by the Amazon "Kindle", a wave of e-readers has been developed over the past 4 years

- 50 000 Kobos have been purchased since its release in 2010.[48]
- 12 million e-readers sold globally in 2010, of which Kindle makes up 48%.[49]
- In the United States in 2010, 37% of readers were reading e-books using computers, 32% Kindle and 3% iPad.[50]

Figure 8. Devices used for reading e-books



Source: Tablets and E-readers – US – April 2011, Mintel Group Ltd
store.mintel.com/tablets-and-ereaders-us-april-2011.html

According to the Consumer Electronics Association, in 2010, 538 000 e-book readers were shipped for a value of USD 154 million. Despite the enhanced competition, Kindle has retained an estimated market share of almost 60% through 2009.

It should, in particular, be emphasised that the e-book markets in most non-English speaking economies have developed independently of the major United States/Global players.

The Amazon Kindle e-reader and related e-book store has expanded operations into non-English language markets[51] via localised websites as well as through the Amazon.com site. As a convergent device, offering access to a range of services (web browsing, e-mail, music, games), the Apple's iPad tablet was not so significantly hampered by the challenge of providing immediate access to foreign language books. However, like Kindle e-books, Apple's iBook store is only now making its entry into the foreign language e-book markets.

In the meantime a number of e-reader manufacturers, together with publishing houses and/or booksellers have emerged as major players in these e-book markets.

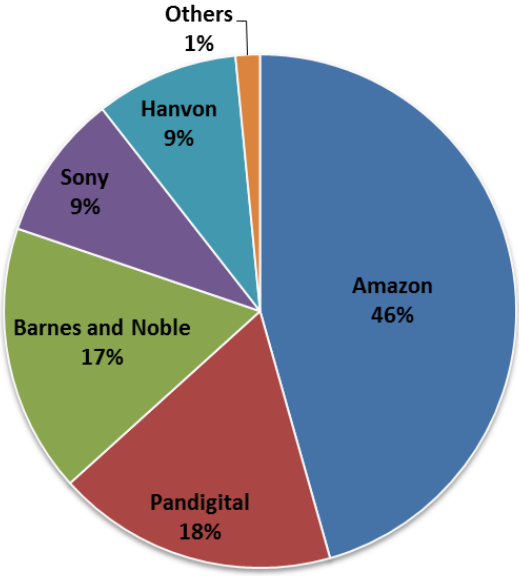
In Germany, for example, the leading bookseller, Thalia, launched its own e-reader (the Oyo) and e-bookshop in October 2010. With several thousand e-book titles, it claims to offer the largest collection of German language reading material on the market. Alongside Germany, the Oyo is sold in Austria and Switzerland. Thalia has also formed alliances with booksellers in other European countries to distribute the Oyo with access to local language e-books. In October 2011, one week in advance of the release of the Kindle for the German market, two other German booksellers, Weltbild-Aluratek libre and Hugendubel, launched their own e-reader which is significantly cheaper than both the Oyo and the Kindle. It comes with direct online access to over 120 000 German language e-books.

In France, Virgin Megastore has partnered with both Amazon and Bookeen (recently positioned in 4th place for growing technology companies in the national awards by the Deloitte Technology Fast 50 2011) to sell the Kindle and the Cybook. The French leading bookseller, Fnac, has partnered with Kobo to sell the "Kobo by Fnac" with access to its own e-bookshop.

In Korea, Samsung has partnered with Google to sell its E6 and 101 e-readers with access to Google e-books. Their major competitor is the iRiver "Story" which has a partnership with Korea's major on-line and off-line bookselling chain, Kyobo. It also accesses Google e-books. Both devices are sold internationally with the iRiver doing particularly well in the United Kingdom. The iRiver is marketed as "Google's first integrated e-reader".

In China, publishing houses are mostly developing their own e-readers with (often exclusive) access to their own e-books. Since independent hardware manufacturers face difficulties obtaining access to most published works they tend to provide very open platforms for their devices so that any content which is available, either from various public sources, or, as and when agreements with publishers may be achieved, will be accessible by the e-reader. It is a hardware, rather than content, driven market at this stage. The market is dominated by Hanvon Technology Company which has over 70% share of the e-reader market in China, and 8.2% of the worldwide e-reader market (see Figure 9). A total of 2.7 million e-readers were shipped worldwide in the 3rd quarter of 2010. This was a 40% increase over the 2nd quarter of 2010.[52]

Figure 9. Worldwide e-reader shipments



Source: Worldwide Quarterly Media Tablet and e-reader Tracker, International Data Corporation (IDC), *www.idc.com/getdoc.jsp?containerId=prUS23034011.*

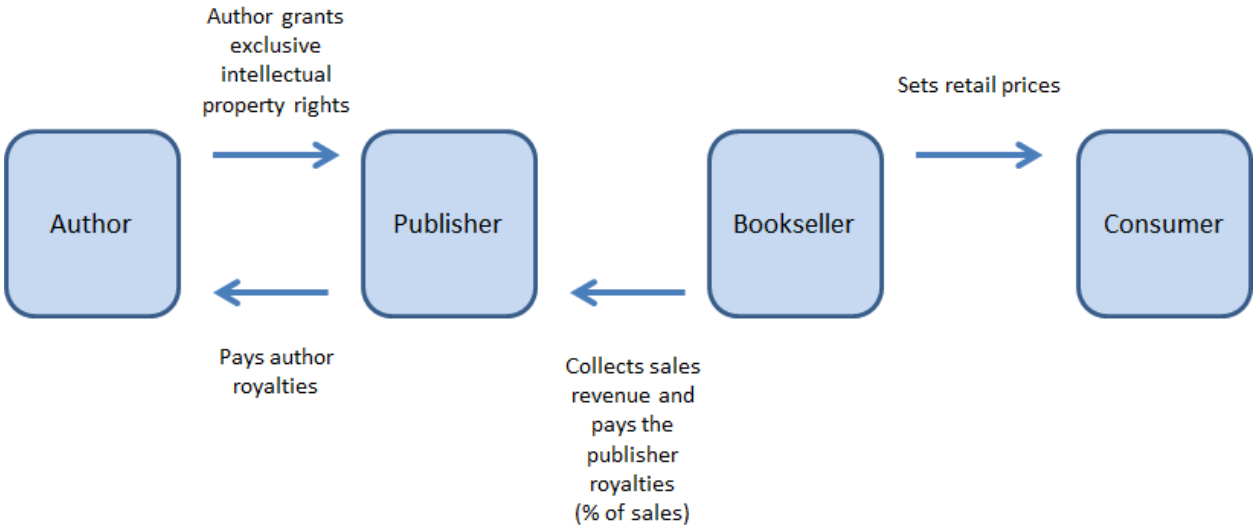
Bookselling models

Wholesale model

The traditional contract between the author and publisher follows a value-chain known as the *wholesale model*. The author grants the publisher exclusive intellectual property rights in the published "book", and the publisher agrees to pay the author a set percentage (generally around 17-20%) of sales revenue as author royalties. The publisher takes on responsibility for a number of functions including: selection of works and authors, financial advances for authors, editing and formatting, marketing, organising printing and distribution and negotiation with retail sales outlets.

Booksellers pay a fixed percentage of retail sales revenue to publishers as a publisher royalty for every book sold. A fixed percentage of this is, in turn, passed on by publisher to author as the author's royalty.

Figure 10. Traditional value chain for printed books



Source: OECD

The traditional value chain for book publishing is known as "the wholesale model". It is based on the book's progression from raw created content, through manufacture and wholesale/distribution to retail, and finally to the consumer. At every stage in the chain there are assumed to be costs, and profits, and these are embedded in the price as the item moves up the chain.

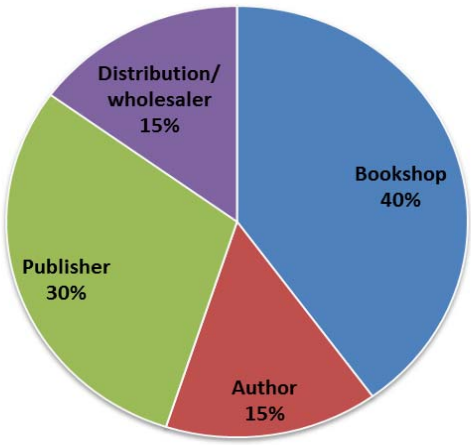
Table 1. Traditional value chain for books from author to consumer

	AUTHOR	AGENT	PUBLISHER	DISTRIBUTER / WHOLESALER	RETAILER	CONSUMER
Role	Creation of raw content of the book	Negotiates author's contract and related legal rights with publisher	Curator, editor, formatting, author advances, manufacturer, printing, copyrights, royalty payments, marketing, legal responsibility for content.	Warehousing, selling, packaging, distribution of physical print runs, negotiations with, and shipping to, retail sales outlets	Provision of shop's real estate, storage, shelving, and display of books, Inventory, sales staff, payment of royalties to publisher	Reader of the book
Cut* % of the book sale price	**8-15%** paid by publisher as an advance and (once advance is paid off) royalties	*(Agent takes a % out of the author's cut)*	**30%** Revenue from sales to distributer. This is net revenue, after deducting author royalties and printer fees	**10-15%** from sales to wholesaler or sales direct to retailer	**40%** difference between retail price and wholesale price	

Source of data: http://ireaderreview.com/2009/05/03/book-cost-analysis-cost-of-physical-book-publishing/
Notes:
Cut: These figures are not fixed; the figures provided here are exemplary based on rough averages.
Publisher fees: Printing costs effectively account for 10% of the book retail price.
Retailer: All discounts are variable and depend on quantities ordered, the channel and if the product can be returned

Authors sell the rights in the content they have created to publishers in exchange for: the provision of advance payments on expected royalties from sales, the provision of resources and services required to produce, distribute and market the book content to consumers. Publishers sell their books to distributers / wholesalers for a percentage of the recommended retail price. Sales to nation-wide wholesalers are typically made at 55%-65% off retail. Sales directly to retailers are, consequently, made at rates ranging from 45%-55% off retail.

Figure 11. Breakdown of revenues within the traditional model



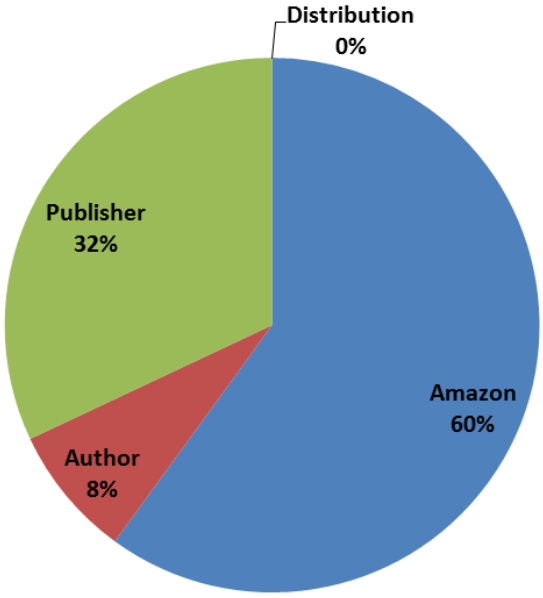
Source: ireaderreview.com/2009/05/03/book-cost-analysis-cost-of-physical-book-publishing/digital e-books

The wholesale model grants discretion to booksellers in countries without fixed book pricing (FBP) such as the United Kingdom, United States and Australia, over their discounting policy. Discounting policies will vary according to volumes of orders, demand for titles, and nature of "returns" arrangements with publishers. They may also be tied to a broader, long term commercial strategy for gaining market share and driving smaller competitors from the market.

Arguably, the battle to increase market shares by undercutting the price floor of competing booksellers led to both the growth, and the consequent demise of the giant book selling chain stores. Discounting effectively priced many of the smaller, niche and independent booksellers out of the market. Second, competition between remaining bookselling chains was based almost exclusively on price. Some have argued that this has diminished access to bookselling customer services, such as advice and assistance to committed readers.

As an e-book platform with the added advantages of established international reach and an unlimited inventory, Amazon could position itself in the value chain between the publisher and the consumer, taking over roles of distributer, wholesaler, and bookshop. They were thus able to extract the wholesale discount from publishers (around 70%) on the one hand, while extracting full retail revenues, directly from the consumer, on the other.

Figure 12. Amazon and the wholesale book model



Amazon's discounted prices for e-books helped boost sales of the Kindle e-reader. While the low retail prices certainly benefitted e-book readers in the short term, the reduction in both royalties (in percentage terms) and the book price, arguably represented a challenge, in the longer term, to the revenues of certain content creators. On the other hand, the platforms can be particularly beneficial to authors who may not have been able to publish books under other business models. Authors can self-publish their own books on the new platforms and reach a wider audience (and potential revenues) than may have been possible before.

The experience of retail discounting strategies in the English language markets of Australia, Canada, United Kingdom, and the United States had arguably demonstrated the detrimental effect on all

but the largest booksellers. It was already evident that the consequent commoditisation of the book by the latter could not sustain the industry. While the reduced revenues for publishers and authors meant that most of those in the business of creating, filtering and shaping content may have seen a decline in revenues, the giant bookselling chains found themselves without a viable business case. A comparison with book markets which control retail book pricing would suggest that the failure of booksellers such as Borders was more closely related to discounting policies and price wars than the threat of e-books *per se*. Amazon was in a position to benefit from the system set up by the wholesale model, but it was not, arguably, the root of the problem.

At the same time, the more theoretical economic analyses of the potential impact of digital disruption on the book industry, were/are based on an assumption that a reduction in supply chain links (removing unnecessary middlemen) implies lower overheads. Reducing both the costs, and the number of "shareholders" in the book value chain, should, rationally, translate into both cheaper books for consumers, and higher royalties for authors.

Between Kindle's launch in November 2007 and the summer of 2009, Amazon succeeded at launching and capturing upwards of 90% of the e-book market and, in turn, 60% of the e-reader market by adhering to a wholesale model similar to the one it employed selling traditional paper books. Under the previous model, which still dominates the world of physical books, publishers sold books to retailers at wholesale prices, and retailers could then charge customers whatever price they liked, rather than being obligated to sell at a fixed price dictated by the publisher.

Amazon decided to heavily discount e-books while still paying publishers their 15%-35% royalties at wholesale prices. As the Kindle platform grew, Amazon benefited from positive network effects as more Kindle users made the Kindle Store more appealing to publishers and more content availability made the Kindle platform more appealing to end users.

This discount tactic helped Amazon become one of the largest booksellers in the world. The impact on authors was largely positive, because most publishing contracts paid royalties based on cover price. Amazon's sales price moved more books, but, just like retail discounting at a physical bookstore, the royalty base was unaffected by Amazon's discounting.

The e-book pricing structure aggravated a problem for other booksellers that began with Amazon's hardcopy discounting. Instead of having only a single major channel – bookstores – publishers in effect had two channels – physical bookstores and Amazon. What was good for Amazon – offering hardcopy bestsellers for as little as USD 9.99 – created challenges for bookstores because the booksellers could not compete with this price. These bookstores are also viewed as important venues for promoting new authors and marketing titles.

The agency model

The wholesale pricing model did not last long, however. When Apple entered the book market in April 2010 with the iBook Store for the iPad, it ushered in an era of "agency pricing". Apple offered major book publishers the ability to set the retail sales price for their books. Thus, the Agency Model gives the publisher the role of selling the book and setting its retail price. The e-book platform at the customer interface (*e.g.* ibooks) plays the part of a retail "agent", and receives a commission (a percentage of the book price set by the publisher) for every book sold. Apple's commission is set at 30%. Despite a brief hold-out by Random House, the six largest English-language publishing houses agreed to the new terms.

Table 2. The agency model value chain for books from author to consumer

	Author	Agent	Publisher	E-book store	Consumer
Role	Content creation	Handles legal and commercial negotiations with publisher	Consumer sales and price setting	Retail agent for publisher / bookseller	
% cut	E.g. 40% Potential to leverage higher royalties		E.g. 30% Pressure to reduce share of revenue in favour of Author	E.g. 30% Receives agency fee as % of retail price	

Notes:
The author may take on digital marketing responsibilities. For the publisher, the incremental costs of printing / manufacturing, physical storage and distribution approach zero with e-books. The publishers fixed costs would still include curating, editing, formatting books and providing author advances.

Figure 13. Agency model: Possible revenue split

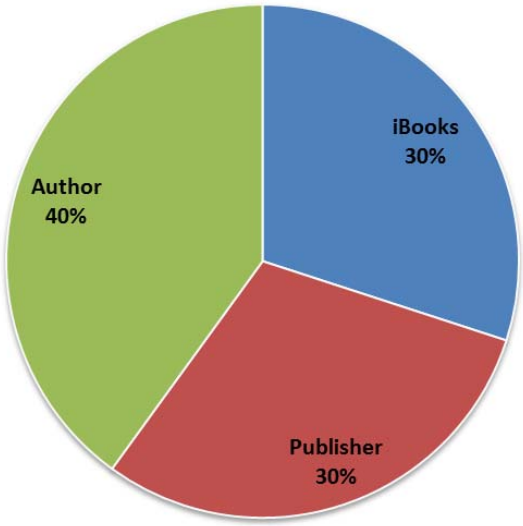
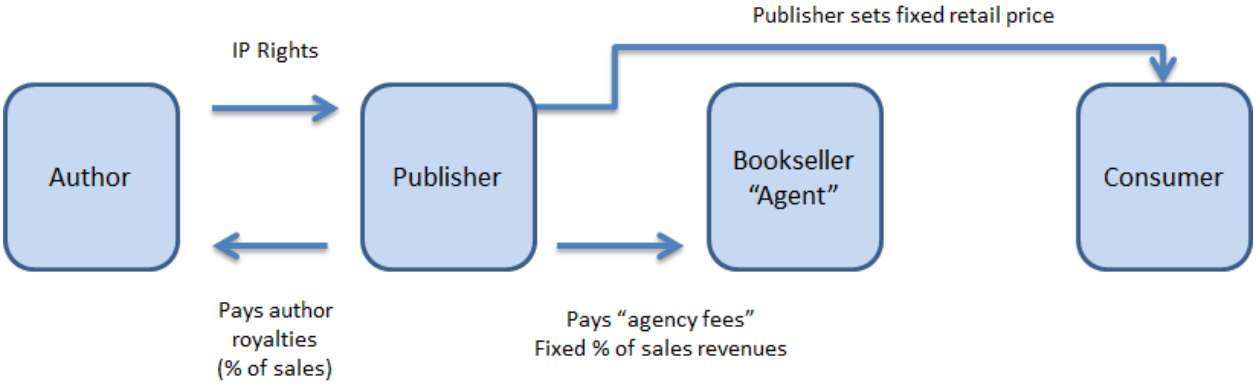


Figure 14. The new agency model for e-books



After a brief showdown between publishers and Amazon, Amazon now also allows publishers to set their own prices. The agency model has now been established as the e-book pricing standard. Publishers have thus far guaranteed similar pricing across all stores, refraining from using their price-setting abilities as a way to favour one platform at the expense of others. It appears that consumers can also expect that, whatever reader platform they choose, they'll have access to content at identical prices.

The agency model is beneficial for publishers because it addresses their channel conflicts between physical bookstores and online sales. They can set online prices in a way that does not completely cannibalise sales in bookstores. It also provides new mechanisms for dynamic pricing and may encourage new authors into the market.

For competing digital booksellers, the new model is also good news: Instead of having to pay publishers half the cover price of a hardcover book and then sell that book at a loss in order to match Amazon's prices, the bookseller now gets 30% of the newly-set price without having to pay anything up front.

The change in pricing mechanism has affected a two-fold change in retail e-book prices for consumers. On the one hand, it has led to higher prices for bestselling titles and new releases from prominent authors, whose e-books now retail for upwards of USD 15.00 rather than Amazon's previous standard of USD 9.99 for bestsellers.

Over the last twelve months the agency model has established itself as a new basis for e-book contracts between publishers and seller/distributers across the publishing industry, and, more recently, across a number of OECD markets. The collective power of the major publishers in the United States market[53] eventually forced Amazon to accept the new model, and consequently raise its retail prices for e-books.

However, the future of the agency model is not certain. There have been concerns that the agency model can lead to e-book price fixing that dictates and maintains certain price minimums at the retail level.[54] The introduction of the agency model did not lower e-book prices but raised them by upwards of 50%. Bookstore owners may disagree about consumer benefits, but the agency pricing strategy has not been good for most consumers because it results in higher prices for books than they would be paying if Amazon were left to its own pricing strategy.

The agency model has raised the suspicion of regulators both in the United States and Europe. In June 2010, the state of Texas in the United States began an investigation into the agency model price-fixing deal between Apple and five of the six largest English-language trade book publishers. Several of the largest trade book publishers settled with the United States Department of Justice in April 2012.[55] In March 2011, European Union antitrust authorities raided several publishers in Europe, searching for evidence that they had acted illegally to keep prices high in the electronic-book market.

While the future of the value-chain is still uncertain and the current scrutiny, in various jurisdictions, of different pricing models is yet to be finalised, potential future work investigating the nature of concerns and solutions developing in different OECD countries might be timely. In particular, this could assess, and compare, the economic consequences of various policy options in this context.

On the other hand, however, there has been demonstrated price erosion in e-books that are neither bestselling titles nor new releases by prominent others. This erosion has been spurred by the rapid ascent of independent publishing.

Self-publishing model

E-books also provide the opportunity for authors to bypass the publisher completely and publish their own works. The value chain for "self-publishing" generally involves:

- Author > Agent > e-book platform > consumer

E-book platforms such as those of Amazon and Apple offer self-published authors the opportunity for a direct customer interface at their online stores and charge a commission of 30% on the book sale price (which is set by the author him/herself).

A number of famous and recognised authors have opted to bypass publishing houses in this way. Since they no longer depend upon the publisher for publicity and recognition, and very little resources are required for e-book production, distribution and storage, the significantly increased revenue from self-publishing (70%) looks like an obvious choice.

Figure 15. Self-publishing model for e-books

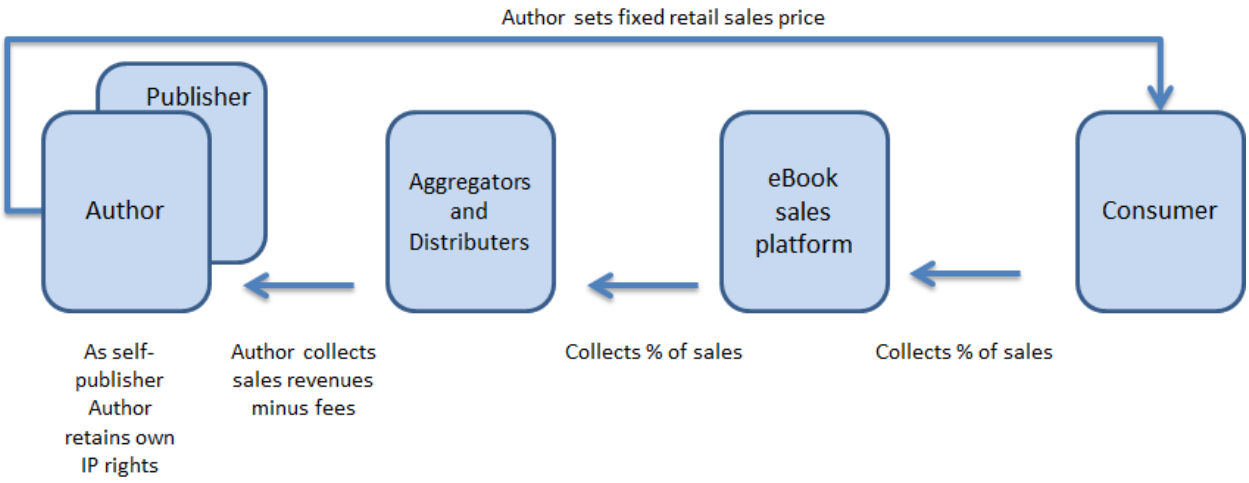
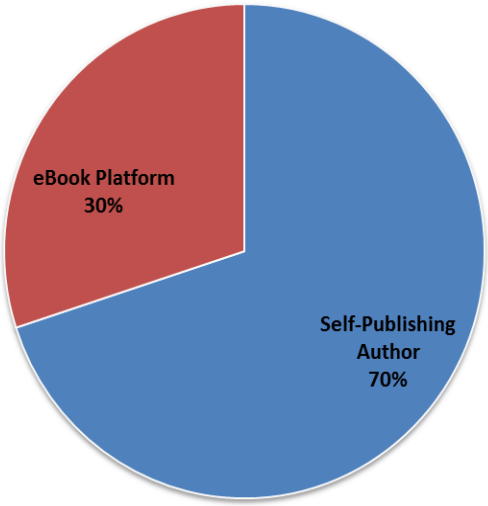


Figure 16. Self-publishing model breakdown of revenues



It may not, however, represent a sensible option for newer, less-well-known authors. Content creators still depend, in the first instance, upon the selection and filtering processes of trusted gatekeepers to distinguish their work from the countless other self-published e-books now available from e-book stores. Publishing houses, with their years of experience in choosing, editing and fostering quality writers, are still trusted with an exclusive and recognised authority to play this role.

Apple's trademark agency fee of 30% of the price of an e-book sold, and similar offers from Amazon and other platforms does, however, provide all authors with some valuable leverage as regards negotiating their royalty rates with traditional publishers.

Legal disputes between authors and their publishers, over control and royalties for electronic forms of published texts, are progressing in a number of OECD countries. However, it is arguably too early to draw useful conclusions at this stage in the evolution of the market. Given the significant diversity in national copyright laws, as well as the variance in wording of individual contracts, precedents drawn from the case law may, in any case, be limited.

The "big deal" model

This model, (adopted early by the OECD for example) is now common in scholarly publishing. The publisher offers a bundle of e-books to an institution (*i.e.* library) for a fixed, annual, fee. An agent may or may not take a cut of around 5-15% in the middle. The users, or members, of the institution are provided with unlimited access and download rights. The publisher receives a fixed income that is renewed annually in a similar way to a subscription.

The digital effect on the role of the publisher

Most publishing houses are starting to publish e-books. A recent survey of publishers and authors in Australia[56] found that the overwhelming majority of respondents viewed e-books as a positive opportunity, and a source of additional income. The most significant concerns, of both authors and publishers, were the technological skills gap, and the need to learn new methods of digital marketing and distribution. At this stage the additional responsibilities, and new skills required, represent a significant

challenge (and cost) to the traditional publishing house, while e-book sales are still a very modest percentage of overall book sales.

Government initiatives to support industry-wide training on digital methods and related technical and commercial know-how may represent an issue for policy consideration.

While pricing, value chains and business models for e-books markets are still evolving, economic analyses would suggest that there should be a natural trend toward authors' receiving a greater "cut" of a smaller "pie". The author's royalty percentage with e-books should increase as a result of:

- Fewer links in the book value chain.
- No printing, storage, physical distribution costs.
- Contribution to new digital methods of marketing and publicity.
- The e-book price would, however, normally be expected to be lower than the print book price.

While e-books make certain of the traditional intermediary roles redundant (printing, warehousing, physical distribution), they are also creating new ones as core players in the value chain choose to outsource digital methods of, for example, electronic payments handling, online marketing, text conversion and formatting.

TRENDS

Adoption

As the market for e-readers has grown, the market for e-books has accordingly followed suit. E-books sales in the United States are growing exponentially. Currently, e-books account for an estimated 8% of total book revenue, up from 3% to 5% a year ago. It has been estimated that e-books could account for 20% to 25% of total unit sales in the United States by the end of 2012.[57]

In February 2011, a couple of months after many readers got electronic reading devices for the holidays, sales of e-books reached USD 90 million - more than tripling the number from a year earlier, according to the Association of American Publishers. Although that number was still smaller than sales for all paper formats combined, it outstripped any single print format - hardcover, trade paperback or mass market paperback.

There are a number of other interesting data points from the Bookstats Survey 2008-2010 that was produced jointly by the Association of American Publishers and the Book Industry Study Group. These include.[58]

- E-books have grown from 0.6 % of the total "trade" market share in 2008 to 6.4% in 2010. This represents an increase of 1 274% in publisher net sales revenue year-over-year.

- Net unit sales growth for e-books increased 1039% for the same three-year period. In 2010, e-book net units were 114 million.

- Online sales: From 2008-2010, Online retail gained more than the market share that other channels lost. There are two distinct factors contributing to this: the strong overall growth of the online channel as consumer purchasing preferences and the explosion in the popularity of the e-book as a reading format.

- Net sales revenue reported by publishers for content sold directly to online channels is USD 2.82 billion in 2010. This year-over-year growth represents an 18.8% increase from 2008-2009 and 30.7% from 2009-2010, for a three-year overall growth of 55.2%.

- Net unit sales growth has been even stronger, from 19.6% in 2008-2009 to 40.9% in 2009-2010, a total growth of 68.6%. Total net unit sales by publishers to online channels in 2010 are USD 276 million.

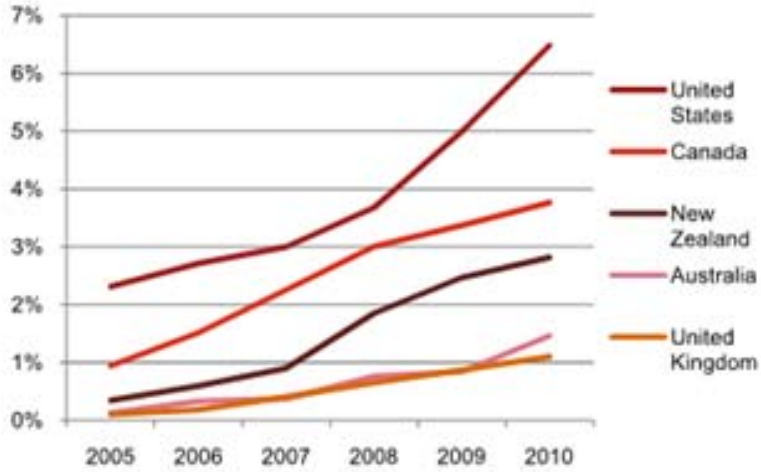
On 19 May, 2011, Amazon announced that since April its sales of e-books had overtaken sales of all forms of print books combined. Starting in April it has sold 105 e-books for every 100 print books.[59] This does not include downloads of free Kindle e-books, which if counted, would push the e-book advantage even higher. Consumers spent an estimated USD 966 million on e-books in 2010. By 2015, the industry will have nearly tripled to almost USD 3 billion.[60]

Figures collected to date by national publishers associations suggest that e-books sales still make up an insignificant proportion (around 1% for 2010) of book sales in most OECD countries outside the

United States. Figures for the United Kingdom[61] suggest a slightly greater percentage of the book market represented by e-books (2-3%).[62] Figures for the United States show e-books representing up to 8% of book sales in 2010. More notable than absolute revenue or percentage figures, are the recent dramatic rates of *growth* in OECD markets for e-books.

Figure 17. E-book sales as a proportion of total book sales

Selected countries, 2005-2010



Source: PwC, 2010; TNS Global, 2011

1. In February, 2011 the International Publishers Association asked members for data about their developing e-book markets. The following excerpts were gathered from summaries published by The Bookseller.[63]

- **France**
  E-book market: 0.5% of overall sales or USD 17.6m 2010, (cf. USD 15.8m 2009)
  Concerns: "Losing control over their strategy, where companies such as Amazon tend to prevent publishers from determining their individual pricing strategies and from properly remunerating the whole book chain."
  Source: Alain Kouck, président-directeur général Editis, président Syndicat National de L'Édition

- **Germany**
  E-book market: "Well below 1%" [1% = USD 118.7)
  Concerns: "Publishers have to reconsider their business models to counter the danger of being disintermediated by direct relations between authors and retailers. Also, in respect to scientific and scholarly publishing, there has been a lot of pressure by libraries relating to 'free' access."
  Source: Manfred Antoni, Ernest Klett AG, Börsenverein des Deutschen Buchhandels

- **Japan**
  E-book market: 1.1% or USD 142.5m, 2010
  Concerns: Printed publications are sold under a resale price maintenance system in Japan. However, this does not cover e-books. Japanese copyright law provided publishers the right to exclusively copy paper materials. Yet this right does not extend to digital works, and Japan's copyright laws permit users to digitise protected works for personal use. As a result, digital

bootlegs are a growing issue. The Japan Book Publishers Association is seeking to implement a standard contract of e-publishing between authors and publishers, which provides rights about e-publishing of the work for the publishers that initially published a paperback. *Source*: Japan Book Publishers Association

- **Netherlands**
  E-book market: estimated 350 000 e-books sold in 2010
  Concerns: "Piracy or file sharing is a major concern, while lack of standardisation in metadata (accessibility of content) and in publishing and platform formats is also a worry. The forced use of third- party platforms (Amazon, Google—they might even become publishing competitors) under unfavourable conditions, as well as self-publishing, are further areas of concern. Library lending policies are unresolved and under pressure."
  Source: Dutch Publishers Association & PWC

- **South Africa**
  E-book market: estimated at less than 1.5%, or USD 6.3m
  Concerns: "There are no legislative constraints to digital and e-book publishing in South Africa. However, publishers who were surveyed indicated that promoting e-books in their territory was not attractive because when readers purchase books from Amazon, which are supplied by their parent company, no financial benefit accrues to them. E-books constitute less than 1.5% of the overall book market in South Africa. The contribution of e-books to revenue is even less, considering that online e-books retail at less than 50% of the price of traditional print books."
  Source: Publishers Association of South Africa

- **Spain**
  E-book market: 1.6% or USD 69.8m
  Concerns: "The e-book market is a new field of business that will complement paper and therefore, if there are the juridical necessary guarantees, it will be a necessary field of investment."
  Source: Spanish Publishers Association

- **Italy**
  E-book market: between 0.1 and 0.2% of the total trade market , or USD 30m
  Concerns: "It is growing fast but the day e-books will outsell print is not imminent. We feel it is important that publishers help the media to print correct information about e-books. Italian book publishers, generally speaking, are determined to be in this new market and grow in it paying attention to the spirit of book publishing-— which is that people buy content (not advertising, contacts, or hardware)—and authors are rewarded in proportion to that. The much higher VAT on e-books (20% compared to 4%) makes it impossible to meet customer expectations on prices."
  Source: Stefano Mauri, president and CEO Gruppo editoriale Mauri Spagnol

- **United States**
  E-book market: approximately 8% or USD 440m
  Concerns: "One of the greatest concerns that faces publishers in regards to the e-book market is the proliferation and ease of piracy content in digital form."
  Source: Association of American Publishers and Young Suk Chi, vice-chairman and CEO of Elsevier Science & Technology, AAP board member and IPA president
  Jens Bammel: IPA Secretary-General

- **United Kingdom**
  "Some publishers are reporting e-book sales growth of between 100% to 800% from 2009 to 2010, with a percentage of print book sales ranging from 1% to 9% of total revenues in 2010."
  "Just as the ease of global distribution mentioned above provides an opportunity to maximise sales, so too does it offer challenges in terms of territorial marketing. Indeed, the whole issue of book rights being divided in ways which suited physical book distribution may become less relevant in a digital distribution world. Publishers can publish digital editions globally more effectively by combining global marketing and distribution efforts. Multiple editions of the same title can cause confusion in open markets as well as encouraging political interventions in exclusive Commonwealth territories such as India. It is a nascent market and therefore unsuitable to over-regulation, although there are clearly many business model issues to be addressed."
  Source: Richard Charkin, Bloomsbury executive director, PA representative to the IPA

Growth in sales of printed books

Unlike the move to online, single track, digital downloads which, to a great extent, replaced purchases of CD/album music, it is becoming evident that, for the most part, e-books are neither understood, nor indeed consumed, simply as a replacement for the print book. They would be better understood as a complement, or addition, to print book consumption. They may well also expand and grow the book market by opening up new, additional, opportunities for purchasing, selecting and reading, providing a greater range of books, at hand, anywhere, anytime.

Indeed, comparisons with the music industry show that the dramatic and still growing decline in physical CD music sales while online access (particularly unpaid downloads) continues to grow, is a story of displacement and replacement. The ever changing form of the physical object used to store and play musical content, over the past century or so of its brief existence, just did not lend itself to the permanent attachment readers seem to feel for books.

The on-going attraction to the physical solid analogue form and feel of the book, and the turning of its pages, looks more likely to be clarified, focused, and distinguished, than simply displaced. Its distinct appeal is already being exploited by increasing production of large, hardback books made with higher quality materials and craftsmanship, which are sold, at a high price, as valuable collector's items. Arguably, the books value as a physical object, and of the acquisition of permanent property rights in it, looks likely to continue to be recognised and appreciated by both established and future readers.

Broader digital adaptation strategies need constant re-adjustments to evolving trends in consumer preference and choice. For example, recent consumer surveys suggesting that e-book buyers are buying more rather than less physical books might indicate that publishers and sellers consider treating them as two complementary markets rather than competing products in the same market. This would favour an e-book marketing strategy emphasising the distinction between e-book and print book products, focusing on their different uses and selling points. This adjustment would represent a very marked departure from the e-book marketing trends to date which are based on convincing the reader of how "book-like" the e-book is[64]. Given the multi-channel selling ambitions of most major publishers (and, increasingly, book sellers) such encouragement of e-book-print book market cannibalisation might be revealed as ultimately rather counter-productive.

There are a number of indications that e-books are not replacing demand for print books. Indeed most recent figures indicate that e-books are stimulating demand for print books.

Box 2. Growth of the book market

Contrary to widespread belief, the publishing industry grew in both 2009 and 2010, aided by USD 1.6 billion in sales from e-books. Total estimated revenue for all publishers rose 3.1% in 2010, to USD 27.9 billion, following a 2.5% increase in 2009. E-book sales across all publishing categories rose 29.4% in 2009 and 38.9% in 2010, and accounted for 5.8% of total industry revenue in 2010.

Source: Tracking the transition: Bookstats, BISG (Book Industry Study Group), *www.bisg.org/news-2-676-tracking-the-transition-bookstats.php*

That said, it is not unlikely that e-books might displace, and even replace, a certain category of cheap paperback books whose value to the reader is immediate but essentially ephemeral, and whose physical form is insubstantial and of little value. To the extent that such a book is an easy and fast read, and considered an almost disposable object once read, the formation of any attachment between reader and this type of book is both illogical and unlikely. The mass consumption and success of e-comics and serialised novellas in Japan could be seen as a demonstration of the strong demand for e-books associated, in particular, with content which is easy, quick and forgettable (and replacing physical forms which were cheap and disposable).

Development of digital libraries/repositories

Many consider that the knowledge and literature stored in libraries is of critical cultural importance and that digital access to it should be provided as an open and public service. In a number of OECD countries the initiative to establish nation-wide digital libraries has already been taken up by government, commercial and/or non-commercial foundations. A digital library is a library in which collections are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers. The digital content may be stored locally, or accessed remotely via computer networks.

Project Gutenberg (PG)

Project Gutenberg is a volunteer effort to digitise and archive cultural works, to "encourage the creation and distribution of e-books". Founded in 1971 by Michael S. Hart, it was the world's first digital library. Most of the items in its collection are the full texts of public domain books. The project tries to make these as free as possible, in long-lasting, open formats that can be used on almost any computer. As of June 2011, Project Gutenberg claimed over 36 000 items in its collection. There are multiple affiliated projects that are providing additional content, including regional and language-specific works. Project Gutenberg is also closely affiliated with Distributed Proofreaders, an Internet-based community for proofreading scanned texts.

The Internet Archive

Founded by Brewster Kahle in 1996, the Internet Archive is a non-profit digital library with the stated mission of "universal access to all knowledge". It offers permanent storage and access to collections of digitised materials, including websites, music, moving images, and nearly three million public domain books.

The texts collection includes digitised books from various libraries around the world as well as many special collections. The Internet Archive operates 23 scanning centres in five countries, digitising about 1 000 books a day, financially supported by libraries and foundations. Around October 2007 Archive users began uploading public domain books from Google Book Search. As of May 2011 there were over 900 000 Google-digitised books in the Archive's collection, out of a total of 2.8 million books. The books

are identical to the copies found on Google, except without the Google watermarks, and are available for unrestricted use and download.

The Open Library

The Open Library is a project of the Internet Archive. The site seeks to include a web page database for every book ever published. It holds 23 million catalogue records of books, in addition to the full texts of about 1 600 000 public domain books, which are fully readable and downloadable. Open Library open source software project, with its source code freely available on the Open Library site.

Europena

At the European level, libraries of the nearly 50 member states in the Council of Europe, are working together to collaborate on single search engine for their collections, *theeuropeanlibrary.org*. The European Commission has also sponsored Europeana, a portal for digital copies of art, music film and books held by the cultural institutions of member countries. It currently contains scans of about 15 million artefacts. Europeana was launched in 2008, with the goal of making Europe's cultural and scientific heritage accessible to the public.

The project is funded by the European Commission. It is based in the National Library of the Netherlands, the Koninklijke Bibliotheek. Work to enhance Europeana with more functions and features for users was carried out by Europeana v1.0, and is continued by its successor Europeana v2.0. This includes major upgrades to the Europeana service to improve user experience.

Over 180 heritage and knowledge organisations and IT experts across Europe support Europeana on technical and usability issues. Europeana also builds on the experience of The European Library, which is a service of the Conference of European National Librarians. Overseeing the project is the Europeana Foundation. Its members are the presidents and chairs of European associations for cultural heritage and information associations.

Europeana brings together the digitised content of Europe's galleries, libraries, museums, archives and audio-visual collections. Currently Europeana gives integrated access to some 20 million books, films, paintings, museum objects and archival documents from some 1500 content providers. The content is drawn from every European member state and the interface is in 29 European languages *www.europeana.eu/portal/*.

A collaboration agreement between the DPLA and Europeana was finalised in October 2011, to ensure "a large part of the world's cultural heritage available to a large part of the world's population". The Digital Public Library of America (DPLA), which will provide access to digital collections from libraries, museums, and archives in the United States, has announced that it will design its technical structure in a way to promote interoperability with that of Europeana, which has developed a similar system to link the major libraries, museums, and archives of Europe.

The Digital Public Library of America and Europeana have established a common goal: "to make the riches of libraries, museums, and archives available, free of charge, to everyone in the world. They will be guided in this mission by the following principles:

- They will make their systems and data interoperable to the greatest possible extent.
- They will promote open access to the greatest possible extent through joint existing and new policies concerning content, data, and metadata.

- They will collaborate regularly in developing specific aspects of their systems, beginning with an interoperable data model

Digital public library of America (DPLA)

Until this year's announcement of plans to establish the Digital Public Library of America (DPLA), public institutions and academic centres in the United States have been focused on making scans of their own collections, or collaborating with others on themed projects, rather than combining their electronic resources into a single national online access point.

The DPLA Steering Committee has taken initial steps toward the realisation of a large-scale digital public library for the US that will make the cultural and scientific record available to all. The current research effort involves leaders from all types of libraries, museums, and archives with educators, industry, and government to define the vision for a digital library in service of the American public. The DPLA Secretariat is located at the Berkman Center for Internet & Society at Harvard University; the Steering Committee comprises library and foundation leaders across the nation.

The DPLA planning initiative grew out of an October 2010 meeting at the Radcliffe Institute for Advanced Study, which brought together representatives from foundations, research institutions, cultural organisations, government, and libraries to discuss approaches to building a national digital library. In December 2010, the Berkman Center for Internet & Society, supported by the Alfred P. Sloan Foundation, convened experts in libraries, technology, law, and education to begin work; a two-year process beginning in October 2011 is expected to result in a realistic and detailed workplan for launching the DPLA, as well as unveiling of a prototype of the system with specially digitised materials.

The vision of a national digital library has been circulating among librarians, scholars, educators, and private industry representatives in the United States since the early 1990s, but it has not yet materialised. Efforts led by a range of organisations, including the Library of Congress, HathiTrust, and the Internet Archive, have built up resources that provide books, images, historical records, and audio-visual materials to anyone with Internet access. Many universities, public libraries, and other public-spirited organisations have digitised materials that could now, in theory, be brought together under the frame of the DPLA. These digital collections often exist, however, in silos. Compounding this problem are disparate technical standards, disorganised and incomplete metadata, as well as a number of important legal issues.

Project Runeberg

Project Runeberg is an initiative patterned after Project Gutenberg that publishes freely available electronic versions of books significant to the culture and history of the Nordic countries. The Project began archiving Nordic-language literature in December 1992, but today also has graphical facsimiles of old works such as *Nordisk familjebok*, sheet music, and Latin works by Nordic authors. It was founded by Lars Aronsson and is hosted by Lysator.

Aozora Bunko

Aozora Bunko (青空文庫, the "Blue Sky Library", also known as the "Open Air Library") is a Japanese digital library. This online collection encompasses several thousands of works of Japanese-language fiction and non-fiction. They are all out-of-copyright books or works that the authors wish to make freely available. Since its inception in 1997, *Aozora Bunko* has been both the compiler and publisher of an evolving online catalogue.

Google Book Search

In 2010 Google estimated that there are about 130 million unique books in the world and that it intends to scan all of them by the end of the decade. On 14 October, 2010 Google announced that the number of its scanned books is over 15 million.

The mass digitisation of book texts allows Google to provide a book search service, akin to their web search service, based on the relevance of words or terms chosen by the user. The results aim to allow the user to identify the book(s) of interest, and provide information and links to where the books may be purchased or borrowed. In cases where the book is out of copyright, and therefore in the "public domain", the results will include a "preview", and in some cases, the entire text. Such previews are also given for books where Google has been granted permission by agreement with the publisher. Where the book is available as a Google e-book it may be purchased directly from the Google e-book store.

Google's book project is aimed, in particular, at making accessible the vast majority of published works which are out-of-print and no longer commercially (or otherwise) available to the public. These works are not sold through bookstores nor held on most library shelves, and yet represent an important repository of the world's knowledge and culture. The digitisation of those which are also "in the public domain" (*i.e.* the copyright has expired) is not problematic. However, where the copyright is still valid agreement must be sought with the relevant publisher for permission to digitise their backlist titles. This would generally allow the publisher control over which books may be scanned, specify how text will be provided in search results, and whether they can also be made available as e-books.

Treatment of "orphan works" (out-of-print books, still under copyright, but without an identifiable copyright owner) is more problematic. The proposed settlement agreement, put forward in the case brought against Google by a group of major publisher in the United States, included proposals for retrospective re-numeration of missing copyright holders once they chose to identify themselves. It also gave such copyright owners the right to "opt-out" of allowing access to digital versions of the relevant texts. The legal and public policy concerns raised are the subject of on-going discussion in a number of OECD jurisdictions as well as international frameworks.

E-books in education

Educators across OECD states have been among the very first groups to capitalise on the advantages that e-books have to offer. According to a 2010 survey by Library Journal, 33% of elementary, middle, and high school libraries in the United States offer e-books to their students, while another 25% had plans to offer them in the coming year.[65] Educators and administrators cite the cost savings of e-books as the primary reason for making the conversion. Also of great advantage is the capacity for e-books to be conveniently amended to, for example, update a history text or include a scientific breakthrough in a science book.

The Toronto District School Board recently announced plans to move to digital textbooks by 2015. According to school board members the move could save USD 100 million over the course of a decade.[66] This year Washington State in the United States introduced fully online instructional library for materials for the most popular 81 courses in its community and technical colleges. The programme, known as the Open Course Library, has capped the cost of materials per course at a remarkable USD 30 per student.[67] Daytona State College, a university of 35 000 students in the US state of Florida, is working towards becoming a "100%" e-book campus. Starting in 2009, the university has offered electronic texts for its courses at a price of around USD 20 and offered e-readers at discounts as well. Students are also able to access their texts on any of the school's computers. Officials aim to reduce the cost of textbooks by up to 80% per student.[68]

Educators in OECD countries are not alone in their efforts to move to digital texts. The American University of Nigeria has announced that from the fall of 2011, all assigned course reading would be in electronic format.[69] The university cited the desire to reduce waste and costs, and to take advantage of the school's wireless networks and universal ownership of laptop computers as its primary motivations.

POLICY ISSUES

While the evolution of the e-book market is still at a relatively early stage, a number of concerns have already been raised by various stakeholders. Important issues are emerging which stem from the profound dislocations and disruption of digital technology and online purchasing on the established book industry. Given the inevitable (if gradual) growth of the e-book market, and the broader impact and relevance of issues raised here (*i.e.* for other markets effected by digitalisation of content), it is important that policy makers identify and consider developing policy implications.

The positive potential of digitalisation and online accessibility of books should be recognised as a significant and valuable policy goal. E-books provide new channels and opportunities for innovation in the development of book products and services. E-books should be expected to continue to both drive new growth in these markets, as well as furthering social goals of increased literacy and expanded access to knowledge and education. New opportunities for self-publication of e-books, together with the global reach of the e-book platforms they can be listed on, gives authors direct and open access to potential readers all over the world.

Consideration should also be given to issues and concerns emerging which may threaten, or limit, the fulfilment of this potential. Digital disruption creates instability and uncertainty. Governments may find it appropriate to consider public policy intervention to protect the interests of consumers, citizens and disadvantaged groups as the market develops.

Clearly it is advisable for governments to exercise caution in any consideration of regulatory intervention and/or investment of public resources. Premature policy moves are always at risk of pre-empting and distorting the positive effects of market forces on still evolving markets and unstable market structures. The development of e-book markets is fluid and uncertain at this stage and intervention carries a risk of unintended consequences.

However, there are also good arguments for acting as soon as possible before undesirable developments provoked by e-books cause irreversible harm.

Pre-emptive moves, distorting and limiting the effects of competitive market forces in the evolving e-book market, may also be made by powerful commercial actors. The most powerful e-book platforms, providing both e-book content and reading devices, are controlled by vertically integrated giants with global market recognition and reach.[70] A single commercial move by such actors at this stage may have long term implications for consumer and/or public interests in e-books. National competition regulations may or may not prove effective where the jurisdiction of the buying, selling and storage of the product is unclear. Government initiatives to encourage and inform earlier digital adaptation, and collaboration, in publishing and bookselling industries might empower national players, and provide them with greater leverage in the face of these global giants.

Early government intervention or public initiatives may also be timely where existing regulatory frameworks for books make no provision for e-books and need to be adapted to prevent unintended distortion and discrimination affecting the evolution of e-book markets.

Public policy action may also be considered to be relatively urgent in situations where e-books have accelerated and exacerbated threats to the survival of public institutions such as libraries. Many of the legislative frameworks in OECD economies governing the financing, management and administration of library resources, have not been adapted for application to e-books.

Shifting nature of a book

The surge in demand for e-books appears to have been driven by the development of hardware and software which could successfully *mimic* the familiar experience of reading a *traditional print book*. E-book platforms such as Amazon Kindle and iBooks also use images of traditional bookshelves and bound volumes to display both their titles for sale in the e-book store, as well as the personal library collection of the user's purchased e-books. Consumers have, thus, been encouraged to think of the buying of an e-book as an exchange similar to that which occurs at a bricks and mortar book store for a print book.

With traditional physical books, money is, in fact, exchanged for the acquisition of property rights in the book. Once the buyer has ownership of the book he/she will transfer it physically from the public space of the shop, to the private space of his/her home. The choices and behaviour of the book owner, as regards her use of the book, are, hence forth, perceived as occurring within the private sphere. Since they constitute the exercise of property rights, it could be difficult to find an acceptable justification for preventing, or interfering with, his/her activities in this sphere by a third party.

Given the virtual reality of "traditional books" presented by e-book platforms, buyers of e-books are likely to confuse their rights (i.e. after purchase) with the property rights model for print books. Therefore when they find that they are prevented from doing certain things[71] with their e-book, within their private/ personal sphere, they may feel shocked, confused and/or indignant.

The purchase of an e-book is not, strictly speaking, a transfer of property rights. The actual property which constitutes a print book (paper, ink, bindings etc.) is simply not there and there is no right such as the "first sale doctrine" in United States law that would allow e-books that have already been purchased to be resold. The e-book *is* (exclusively) its digital content. Its value, therefore, resides *only* in the rights to that content. Clearly the e-book purchase does not involve a *transfer* of the content rights, since these remain firmly with the rights holders (content creators and publishers). What the purchase does is grant rights of access to the e-book content. The access rights to works protected by copyright are not absolute. They are conditional. They are also likely to be temporary in a number of cases.

Furthermore, the rules concerning the user's rights of access are implemented, not by the choice of the user to be law abiding, or by the threat of sanctions for disobedience, but by technological restrictions embedded in the format of the purchased content.

When e-books are sold as book-like products, and thus as property for private ownership, this can lead to market confusion about DRM restraints and interoperability between e-books and e-readers.

If the e-book were, instead, marketed in the form of a distinct and complementary product to the book object, for instance as a low cost right of temporary access to the digital content, or a kind of content rental arrangement, then there is no basis for the DRM objection. At the same time it opens up a new revenue stream and a new way of hooking customers into a book purchase.

Publishers and booksellers may still be those best placed to recognise, or even pre-empt new lines and structures of preference, demand and market differentiation within the broader e-book market. The demand for certain types of content is likely to be somewhat related to the preferred reading device. The degree of interactivity and networking built into the reading experience may appeal to those who also opt for a convergent table device, but not those who prefer uninterrupted, concentrated reading on a dedicated

e-reader. Both factors probably relate loosely to age group. New ways to use and sell access to e-books may be developed and shaped to better fit consumer demand, and to encourage cross fertilisation between e-book and print-book markets.

For example, temporary and relatively low cost access to an e-book of interest to a reader might be appealing as an opportunity to sample the reading experience before purchasing. When the temporary access period finishes the reader might be offered options to buy the permanent access to the e-book, or to order the print book version.

24symbols.com was launched in June 2011 and presents itself as a "Spotify for books".[72] It provides free streamed access to online e-book content with advertising, or add-free access for subscribers paying a monthly fee of around USD 15.

Amazon Kindle has recently introduced a book borrowing service, but it appears to be an attempt to attract greater commitment to Kindle readers and loyalty to the Amazon brand for e-books, rather than a way to give customers a low cost temporary "sample". It is only for customers who own a Kindle reader, and who are also willing to pay $79 per year to join its "Amazon Prime" service. It also allows such customers to borrow a book for as long as they want, but only allows one book at a time.[73]

Both Google Books, and Amazon's 'view inside' service allow consumers to sample portions of text for free before they buy.

The choice to make the longer term investment in physical and permanent ownership of a particular book, rather than simply the right to access its digital display, might take on new meaning. A person's selection of quality physical books, for attractive display on book shelves, might come to be appreciated, as a kind of presentation of that person's chosen, tastes, interests, preferences and identity.

The software already embedded in particular e-readers / tablets is set up to work specifically with e-book content in a particular format. The match between format and application is obviously essential to the working of the user-oriented display, reading and storage functions. This match, however, also provides the gateway for the copyright owner to exert on-going control over the content stored on the user device. Despite the fact that the user has paid for all of the hardware, the software and the content concerned, the user's controls may always be over-ridden by the DRM controls. This means that, under certain conditions, the user's rights and access may be modified or even denied.[74]

It has been suggested that, with DRM, the consumer's relationship with their selected e-books, even those stored on their own devices,[75] is better described as a "rental", or a "license to access", rather than a "purchase". This is also closely linked to discussions in the European Union and WTO on whether digital products such as e-books are classified as "goods" or "services".

In the European Union, the Directive on Consumer Rights[76] which aims to harmonise rules on information to be provided by business to consumer in off-premises and distance contracts, treats digital content that is supplied on a tangible medium as a *good*.[77] Digital content which is supplied in an intangible format, however, is neither considered as a *good*, nor as a *service*. While the directive does not address the issue of what consumer rights should apply in the case of the intangible product, it does specify that the right of withdrawal that consumers enjoy in the purchase of digital content supplied on a tangible medium (14 days) should also be available, albeit in a limited form, to consumers purchasing the intangible products.

At the WTO, the classification issue has been the subject of an on-going and yet unresolved debate among member countries.[78] While the question is not explicitly dealt with in WTO rules (GATT/GATS), in 1998, the WTO adopted a *Work Programme on Electronic Commerce* which called

upon its member countries to "continue their current practice of not imposing customs duties on electronic transmissions".[79] Although the moratorium is still in place, the challenge for the organisation and its member countries has been, and remains, to determine whether digital content products delivered electronically should be classified as *services* (thus covered by the GATS) or *goods* (thereby covered by the GATT). Treating digital products under GATT rules would provide for an automatic extension of national treatment, which, in the GATS, is a negotiated commitment.[80]

The key point to be made here is not that there is necessarily anything "wrong" with the e-book suppliers setting conditions to the access rights granted to customers of their e-books. Nor, arguably, is it (necessarily) inappropriate to use DRM technology to restrict their customers' use of the access to that which meets their conditions.

The policy concern worthy of greatest consideration is arguably consumer protection: transparency, product information, and the risk of misleading the consumer.

Given that the purchase of an e-book is, as far as the buyer is concerned, emphatically not like the purchase a physical book; and, given that the nature of the "thing" purchased is not like property, but more like a right of access, it might be reasonable to expect that the sellers of e-books should make this distinction very clear. It would also be in the consumer's interest to ensure that information explaining what the DRM is, and what it restricts, and why, be highlighted for the buyer, prior to his/her purchase of the e-book.

It is reasonable to suppose, that, as the market matures, consumers will gain more experience and understanding of the conditional and managed nature of the e-book access rights that are granted with a so-called e-book "purchase". At the same time there may be greater, clearer consumer recognition of the different ownership and property rights you can acquire with a print book purchase. This represents an opportunity for differentiation between the print and e-book markets.

Already the main e-book platforms are starting to provide lending options (*i.e.* for purchasing temporary access rights) which may turn out to be a better, and more popular, complement to the longer investment in the physical book. The essential distinction between permanent and effective ownership of a physical book, and conditional rights of access to the e-book, has, so far, been somewhat obscured by marketing strategies and use of visual images, which tend to present e-books as a superior, but also substitutable, version of the print book product. The message is still directed at telling consumers to buy e-books instead of print books.

Competitive structure

Price fixing for books

The setting of retail prices by publishers, under the so-called "agency model" for e-books, is under scrutiny by competition authorities in both the United States and the European Commission. In a number of European countries fixed book pricing is supported by government policy as an instrument to protect culturally valuable content, diversity and smaller, independent booksellers. Some of the key questions that must be addressed are: Does the agency model represent horizontal price collusion and a violation of competition rules? Is retail price discounting in the longer interests of the consumer?

The practice of "fixed book pricing" (FBP) emerged in the 19th century, alongside the growth of the book industry in many of the more developed economies across the world. Minimum retail book prices, or "price floors", were fixed, initially by industry agreement between sellers and publishers associations[81] in order to limit the threat to higher quality, more culturally important, books which were seen to be posed

by increasingly powerful sellers / suppliers of, more popular, "blockbusters", aimed at the mass market. The economic argument was based on the understanding that market forces would favour more cost efficient, larger volume, faster production of cheaper, inferior content and the sale of popular, generally lower quality, books at discounted retail prices. This would increasingly limit the ability of smaller sellers, serving niche/ specialist markets to cross-subsidise their higher investment costs with revenues from books appealing to larger markets. The continued government support for FBP in OECD economies today (see Table 3 below) is still based on a number of different public interest, and "cultural" considerations which are seen to justify the explicit restriction of free market forces.[82]

The development of competition policy in the 1970s led to repeals of FBP agreements in countries such as Australia (1972), Sweden (1974), and the United Kingdom (1995). Other OECD countries found there were public interest considerations which justified exempting FBP "business agreements" from their new competition rules prohibiting such collusive agreements and price-fixing. Many others (*e.g.* Spain 1975, Greece 1997, Italy 2005) enacted laws establishing FBP as a mandatory practice. The following table gives an overview of FBP across a number of OECD countries.

Table 3. Fixed book pricing rules (selected countries)

Country	Fixed book pricing	Comment
Argentina	Yes	Law since 2001
Australia	No	Repealed in 1972
Austria	Yes	Law since 2000
Belgium	Yes	Limited to six month
Canada	No	
Denmark	No	Business agreement since 1837, amended in 2001 and repealed on 1/1/2011
Finland	No	Repealed in 1971
France	Yes	Business agreement repealed in 1979, law since 1981
Germany	Yes	Since 1888, mutual agreement replaced by law in 2002
Greece	Yes	Law since 1997
Hungary	Yes	Business agreement
Ireland	No	Repealed in 1995, debated since
Italy	Yes	Law since 2005
Japan	Yes	
Luxembourg	Yes	Domestic books only
Mexico	Yes	Law since 2008 (applies only to the first 18 months after the book publication)
Netherlands	Yes	Business agreement since 1923, currently working on statutory fixed price law
Norway	Yes	Business agreement
Poland	No	
Portugal	Yes	Law since 1996
Republic of Korea	Yes	
Slovenia	Yes	Business agreement
Spain	Yes	2007 Law substituting a 1975 Law
Sweden	No	Repealed in 1974
Switzerland	Yes	Repealed in 1999, re-enacted in 2009
United Kingdom	No	Repealed in 1995
United States	No	

Sources: European Booksellers Federation www.ebf-eu.org/, and (Canoy, van Ours & van der Ploeg 2006, p. 749)

The extent to which e-books are now covered by FBP laws or business agreements is still being clarified in a number of OECD countries. Countries where e-books are explicitly recognised to be subject to fixed pricing arrangements include France, the Netherlands, Norway, Spain and potentially Germany.

Box 3. Example of recent legislative reform regarding FBP in France

France's 1981 "Lang Law" was applied to booksellers physically located in France and allowed a maximum of 5% discounting on the statutory price.[83] A new law was introduced in France on 26 May 2011 that is applicable to the selling of e-books which are also printed or could be printed. It is applied to publishers in France who must set the fixed price for their e-books, and ensure that this is respected by distributers offering e-books to buyers in France. Under the new law, no discounts are allowed on e-books while the 5% discount on printed books remains legal.

Competition investigations on price-fixing

There are a number of notable developments in OECD countries with regards to price fixing for books. Examples from the United States, the United Kingdom and the European Union are provided below.

In August 2011 a Seattle law firm[84] filed a nationwide class-action lawsuit in the United States accusing Apple of conspiring with the five top US publishers to illegally fix the prices of e-books. The publishers named in the lawsuit are HarperCollins Publishers, Hachette Book Group, Macmillan Publishers, Penguin Group and Simon & Schuster.[85] The lawsuit seeks damages for the purchase of e-books, an injunction against pricing e-books through publishers and forfeiture of the profits received by the defendants due to price fixing.

In August 2012, three of the largest English-language publishers, Hachette, HarperCollins and Simon & Schuster agreed to pay USD 69 million to settle claims that they colluded over the price of e-books. The US government sued Apple and the five largest English-language publishers in April 2012.[86]

On 11 March 2011, the European Commission announced it had launched "raids" on several European publishing houses under suspicion of price fixing,[87] and possibly violating EU anti-trust rules that prohibit cartels and other restrictive business practices.[88]

On 11 December 2011, the European Commission opened formal antitrust proceedings to investigate whether international publishers Hachette Livre (Lagardère Publishing, France), Harper Collins (News Corp., United States), Simon & Schuster (CBS Corp., United States), Penguin (Pearson Group, United Kingdom) and Verlagsgruppe Georg von Holzbrinck (owner of inter alia Macmillan, Germany) have, possibly with the help of Apple, engaged in anti-competitive practices affecting the sale of e-books in the European Economic Area (EEA)[1], in breach of EU antitrust rules. The European Commission appears to be considering both *i*) the question of possible price fixing between publishers, and *ii*) the nature of the construction of the "agency" model. If, under i*ii*), the agency construction is found not to meet the criteria of EU competition laws, then this may impact the validity of our current and any future agency agreements.

Under the applicable EU law,[89] a prohibited cartel must also be proven to affect trade in e-books *between* member states, and thus to distort competition in the EU market as a whole, rather than only the national market of the publishers/sellers involved.

While the current investigation applies specifically to the emerging e-book market in Europe, and to the recently adopted agency model for commercial agreements on pricing, it is not the first time that FBP arrangements, *per se*, have been investigated by the European Commission.

In 2002, for example, EU competition authorities concluded proceedings following an official "statement of objections" to the FBP system in Germany. To ensure EU competition laws were not infringed, the German publishing and bookselling associations, undertook to guarantee the freedom of

direct, intra-EU, cross-border selling of German books to final consumers in Germany (in particular, via the Internet). It also established "an exclusive list of conditions under which the Commission exceptionally accepts that a circumvention of the national price fixing occurs".[90]

The European Competition Commissioner[91] stated that "On the basis of EU competition law the Commission has no problem with national book price fixing systems which do not appreciably affect trade between member states. By clearing the German price fixing system the Commission, in a perspective of subsidiarity, also takes account of the national interest in maintaining these systems which are aimed at preserving cultural and linguistic diversity in Europe".[92]

The issues also appeared in the United Kingdom. In January 2011 UK's Office of Fair Trading (OFT) launched an investigation into whether arrangements, under the so-called agency model, between certain UK publishers and retailers over the sale of e-books, may breach UK competition law. Many of the biggest London publishing houses, including HarperCollins, Hachette and Penguin, were asked for all records and documents relating to e-book sales. The investigation was closed in December 2011 when the OFT stated that "following discussions with the European Commission, that the European Commission is currently well placed to arrive at a comprehensive resolution of this matter and will do so as a matter of priority".[93]

The core policy issue raised by FBP is whether books have special characteristics which justify, or necessitate, a degree of protection from the effects of unfettered market forces on the book market. A secondary question is whether the same characteristics, and the consequent rationale for government intervention, are exhibited by e-books.

A final, and more practical, policy consideration concerns the relevance of the agency model in this context. While this model was driven by commercial strategies in those markets which did not support fixing price floors for books, it produces, in effect, the same result. Government support for FBP aims to protect the viability of the content creation which serves interests other than mass market demand. Support for the agency model in the United States and United Kingdom is, likewise, related to ensuring greater recognition, and revenue, for the production of valuable content. Both policy makers and publishers have a common interest in protecting diversity, longer term investment in quality, and a role for expert evaluation in the content of books available to consumers. The public policy goals of protecting the production and availability of cultural assets, and the publisher's interest in maintaining its role as arbiter and supporter of valuable content, are both served by restricting the power of retailers to discount prices below a certain level.

Supporters of FBP argue that the detrimental effect of retail discounting on bookshops has already been demonstrated in markets such as United States, the United Kingdom and Australia. It may be argued that the eventual threat to both publishing houses, and the authors and content creation they support, may be, to some extent, avoided by the introduction of new value-chain models like the agency model. The latter might be seen as a commercial, rather than governmental, solution to a potential market failure problem. If so, a key question may be whether it be desirable for the agency model to be adopted (in non FBP markets) for print books as well. Either way, recent negotiations between Apple, and collaborative publisher platforms in countries like France and Germany, would suggest that the FBP and agency models are remarkably compatible.

Taxation schemes

A number of OECD economies have value added tax (VAT) legislation which applies a reduced rate to books. Generally the law applies only to print books which puts e-books at a significant disadvantage if they are considered to be competing products in the same market. Alternatively, a

distinction might be made between tangible products, such as books as well as digital forms stored on CD, which are sold "over-the counter", and intangible access, defined as "services", to e-books, sold and delivered online.

In the EU VAT rules were defined by the Directive2006/112/EC Article 98.2. This law was used to prevent Spain from harmonising VAT for print and e-books. However, in 2009 EU Finance Ministers voted to allow EU member states the option to extend low VAT rates to e-books (this allows a reduction to 5% but not 0%).

Table 4. Value added tax rates for printed and e-books

Select countries, 2011

	VAT Print Book %	VAT e-book %
Italy	4	21
France	5.5	19.6, to be 7% in 2012
Germany	7	19
UK	0	20
Spain	4	18
Luxembourg	3	15
Sweden	6%	6% if purchased "over-the counter", as a tangible, physical good. 25% if purchased on-line as intangible access.

Interoperability issues and platform lock-in

Apple's refusal to license its DRM solution – FairPlay – to third parties and its refusal to use anything but FairPlay (for its iBooks products) has meant that there is limited interoperability between Apple's products and competitors' products. This has made it difficult, if not impossible, for the average consumer to the digital content from iBooks to third party devices.

Some have stated that applications can act as a barrier to entry.[94] One could argue that iBooks' lack of interoperability creates a barrier to entry in the digital device market. One theory is that consumers who have invested money in iBooks content for their iOS devices will be locked into Apple when it is time to replace their devices. They will not go with a competitive device because of the investment in digital content protected by Apple's Fair Play DRM.

Some have argued that relevant e-book platforms should collaborate on a standard for DRM. The Coral Consortium, Sun's DreaM project, and the Digital Media Project are three examples of on-going standard-setting efforts in the DRM marketplace. Yet none of these efforts have made much headway on the problem. Standard setting can be enormously beneficial to consumers, but some commercial stakeholders are uncomfortable about aspects of the process.

Larry Lessig famously argued that, in cyberspace, the "code[95] is law".[96] This would arguably be an apt description of the attempt by rights holders to enforce copyright rules with DRM technology rather than, an apparently unenforceable, set of laws. However, law enforcement is not the right or responsibility of private and commercial institutions. Policy-makers might, in this context, consider the case for government oversight of digital rights management systems. The incentives and interests of commercial rights holders and vertically integrated e-book platforms may not always be in line with the spirit of the law they claim to uphold with DRM.

There is, unfortunately, insufficient information and transparency about the current, or future, functioning of commercial DRM systems, to allow a balanced analysis of risks, or harms which might support a case for government action. Policy-makers might need to consider whether above mentioned concerns regarding consumer protection and competition are sufficient grounds for insisting on public scrutiny.

> "As is so often the case with software, interoperability is front and center in terms of the antitrust issues. Apple, Microsoft, Sony, and others have developed different DRM technologies to encrypt digital content. … these competing DRM standards limit interoperability – Microsoft's Zune is incompatible with Apple's iTunes. Undeniably, consumers would benefit from increased interoperability in the digital music marketplace – at least in the short term. The lack of interoperability – and Apple's market share – has led some to argue that antitrust should be brought to bear. However, [it is not yet] sure that antitrust – at least at this point in time – should be used to force these companies to make their products interoperable with their competitors".[97]

Privacy

Another important policy focus is that the collection, management and use of personal data collected by e-readers and transmitted back to the company are not transparently communicated to the reader.

User searches and preferences for digital reading material represent valuable data resources for companies such as Google and Amazon. With their cloud based e-book storage and streaming services such companies can also track and monitor reading behaviour (what is read, when, and for how long).

Legal challenges on the basis of data protection and privacy legislation may result in precedent setting cases and/or policy reforms in this area. However, in the short term, policy consideration could be given to ensuring better consumer information and transparency is provided by the e-book suppliers who provide the customer interface. Public awareness and education campaigns about personal profiling and privacy implications may also be a policy consideration in this context.

There have also been situations where DRM software itself on digital media has opened up security issues on users computers (see Box 4).

Box 4. DRM controls as a security concern

In 2005, Sony began shipping compact discs with DRM software embedded. The software (and FTC case) provide a useful example of the above mentioned consumer protection concerns.

It allowed the user to make only a limited number of digital copies and it also prevented consumers from "ripping" the music to common digital formats. (Disclosure)

The digital music files were compatible with only Sony BMG and Microsoft portable devices – thus for example, the consumer could not import that music into iTunes and play it on iPod devices. (Disclosure)

The DRM software was loaded automatically onto a user's computer when the user played or burned a copy of an encrypted CD on that computer. However, the software included cloaking technology – frequently referred to as a "root kit" – that made it hard to remove from the system. At the same time, that technology left the user's computer vulnerable to external attack – in essence, it opened a backdoor for hackers. (Unwanted / harmful software placed on user computer without permission or warning).

Consumers had to use Sony's media player to play the music. That player would "phone home" to Sony's servers when a CD was played and it allowed Sony to monitor usage and serve ads. (Privacy / data protection)

Copyright and piracy

Whereas copying and, even limited, redistribution of physical, printed, bound books is difficult, expensive and relatively easy to locate; copying and extensive, even global, redistribution of e-books incurs little or no cost and requires only limited technological knowhow to achieve. Digital piracy is an illegal act which is also more difficult to locate and sanction than physical piracy. In these conditions digital rights management (DRM) is an attempt by rights holders to make the illegal, also, technically impossible.

Problems and objections arise when technological restrictions on use of e-books go beyond what is generally understood as the prevention of harmful criminal activities, and interfere with the ability of the purchaser to:

- Exercise property rights in the e-book in the same way as he/she can with a physical book.
- Exercise the digital potential of the e-book to expand its benefit and usefulness for public, social, educational or research purposes.[98]

Furthermore, the effectiveness of software based restrictions on copying and downloading is constantly challenged by pirate software developed, and made freely available online, to "unlock" and bypass such restrictions.

Therefore, some argue that the best (if not only) effective way for rights holders to fight the threat of e-book piracy is to focus, instead, on ensuring that the legal e-book offer is generally preferable to the pirated version. That is, legal books need to bring more value to the consumer than pirated ones.

This concerns offering superior quality in areas such as formatting, display and readability, as well as tying in value-added services such as access to related content / feedback from the author, invitations to author readings, rights to purchase printed versions at lower prices etc. It also involves consideration of the availability of the (albeit inferior) free pirate versions in setting prices for the

legitimate e-book. This argument would also point out that, too many security obstacles on access to, and use of, an e-book, may also make it less user friendly (to purchase and read) and more difficult to find, thus favouring the illegal download.

Research and measurement of the actual consumption of pirated copies of e-books relative to sales of e-books is obviously challenged by the reluctance of survey respondents to admit to the illegal activity. However, a number of reports have been published in the last couple of years (2010-2011) which attempt to make estimates of the scale of the problem.

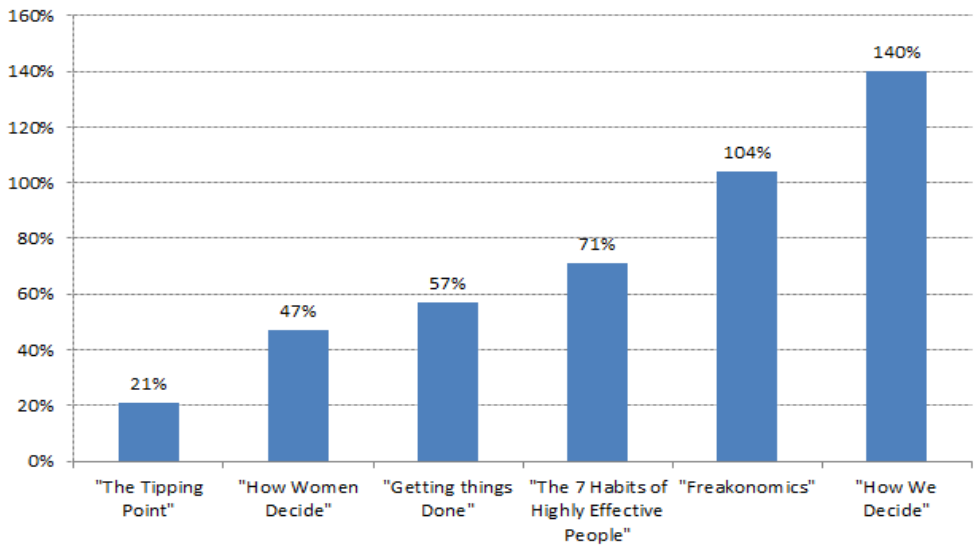
The text below if an excerpt from PWCs 2011 Analysis of the Australian book industry:[99]

> "Recent research,[100] for example, found that "daily demand for pirated e-books can be estimated at 1.5 – 3 million people worldwide" and "the total interest in documents from file sharing sites has increased more than 50% throughout the course of 2009." Likewise, a survey conducted by Entertainment Media Research found that 36% of British tablet owners and 29% of British e-book readers "download books without paying for them, a quarter of who plan to do so more often in the next year".[101] Lastly, a survey by Book Industry Study Group (2011) of American college students found that more than 40% of respondents "said they bought a textbook from a pirate website or know others who have. In addition, many respondents reported copying their friends' textbooks."[102]

In Australia, a survey undertaken by the ARC Centre of Excellence for Creative Industries found that 27.8% of domestic Internet users in 2009 had used file-sharing services like bitTorrent (up from 23.6% in 2007)."[103] These users may or may not be using peer-to-peer services for downloading illegal content but the data do give an indication of the number of users with the software installed.

A study commissioned by the German Bookseller and Publishers Association[104] estimated that 60% of e-books in Germany are downloaded illegally. However, estimates were based on survey questions directed only at the method of access to the e-book content, making the presumption that file-sharing represented illegal down-loads.

Figure 18. Piracy and e-book reader launches



Source: http://goodereader.com/blog/electronic-readers/is-the-apple-ipad-creating-a-surge-in-ebook-piracy/

The Digital Entertainment Survey[105] found that:

- 29% of e-reader owners of both genders and all ages admit piracy. For tablets, the figure rises to 36%.

- One in eight women over 35 who own such devices admit to having downloaded an unlicensed e-book. (That compares to just one in 20 women over 35 who admit to having engaged in digital music piracy.)

Some of the key discussions surrounding copyright protection and enforcement have focused on the role of Internet intermediaries. Internet intermediaries can be Internet service providers (ISPs), hosting providers, search engines, e-commerce intermediaries, Internet payment systems and participative Web platforms that enable communication and transactions between third parties on the Internet. Yet intermediary platforms can also be misused for harmful or illegal purposes, such as copyright infringement, raising policy questions related to the nature and extent of intermediaries' role and potentially their legal responsibilities for actions made possible by the use of their systems.

Questions, in areas such as copyright protection, include whether intermediaries should be responsible for removing or even preventing certain content being made available in the first place, whether their business incentives align with policy concerns, and what are the implications of such an intermediary role or responsibility.

Notice and take-down schemes – whereby intermediaries set up procedures to handle reports about their hosting of infringing content – are in widespread use. They provide a safe harbour if intermediaries remove content when they receive notification of a copyright infringement. Some countries are also investigating notice and response schemes – whereby Internet intermediaries set up procedures to handle reports about specific end-user activities – with some countries implementing voluntary or compulsory schemes for ISPs to forward notices of exchanges of allegedly infringing material via peer-to-peer networks to users of their networks. Technical measures can also be used by intermediaries to restrict access to specific classes of content. For example, some content protection solutions in use by content-hosting platforms compare user-uploaded content with a database of copyright ownership information to detect the original copyright ownership, allowing the rights holders to decide whether to block it, promote it or monetise it, although technical blocking measures raise concerns related to over-blocking and under-blocking. Education and awareness-building among users of Internet intermediary platforms is considered crucial.[106]

Copyright

Adaptation of national copyright laws to the digital content and online access environment is being considered in a number of OECD countries. Key policy issues include:

- *International aspects and global markets*: The growth in cross-border sales of e-books presents challenges for the efficacy of domestic copyright frameworks to protect copyright holders. Acts of illegal copying and commercial exploitation of copyrighted e-books[107] will often take place outside the jurisdiction of the copyright holders, while consumption of the pirated works (and its effect) is likely to be (*inter alia*) within the home market. International co-operation is needed for detection, location and prosecution of copyright infringement.[108] In this context, different national initiatives to review and reform copyright law, and ensure their effectiveness in digital content

markets, should maximise the opportunity to work toward mutual cooperation, collaboration and consistency at an international level.

- Objective assessments: Given the profound and disruptive shifts caused by digitalisation of copyrighted content markets, there is a need to review the objective, measurable impact of copyright rules against defined government objectives. This would include re-assessment of elements such as benefits to rights holders, social goals, consumer interests and economic growth.

- Limiting over-regulation of activities, which have clear and measurable benefit for broader interests, and which have no measurable, negative impact on the provision of incentives to copyright creators. Example's in this category might include non-commercial research, library archiving and text and data analytics.

- General rules applying to definition of "orphan works" (which might include evidence of time and effort spent on searching for rights holders), and a clearance procedure for use of such works.

- Public education and warnings.

- Built in, regular impact assessment and review.

Lending and library use

Consumers

Some e-book platforms use DRM to prevent the transfer of downloaded e-book content between devices. Others limit the number of times transfers may be authorised and/or the number of different devices which may be used. Restrictions may apply also to the users' own devices thereby limiting the possibilities of making back-up copies, as well as abilities to view purchased e-books on upgraded e-reader devices.

As has been discussed previously, the purchase of an e-book from a supplier like Amazon or Apple is possibly best understood as the purchase of a conditional right of access to that digital content. Since the DRM effectively locked the e-book access to the particular user device, the only way that others could read the purchaser's e-book was for him/her to lend the actual device (and thus the access to his/her whole library). Unlike sellers of traditional property rights, those granting access rights were resistant to the demand that e-books be lendable as print books are. From the supplier's point of view, "lending", effectively, meant granting additional access rights for free. However, demand for lending options also represented an opportunity for competitive advantage. Therefore companies such as Barnes and Noble (Nook) and Amazon (Kindle) modified DRM controls to allow e-books to be lent, but under strict conditions.

Firstly, as concerns "sharing"[109] of an e-book:

- **Amazon Kindle**: lets users download up to six copies of each book to different platforms.

- **Nook/Nook Colour**: lets users download each book within devices on an account, limited to six.

- **iBooks**: Users can share among i-devices registered to the same iTunes account.

Second, as concerns lending to others: for example, when lending an e-book on a Kindle the following conditions apply:

- Only to others users who have an Amazon Kindle.
- You can only lend a book once.
- You can only lend for a two week period.
- The book is unavailable to you for the two week lending period.
- Not every e-book is lendable—the publishers decide whether they want a title to have this option.

From an "e-book-as-property" point of view a user might still feel unsatisfied with the restraints on lending. From the "e-book-as-an-access-right" point of view the lending offer may look relatively generous.

Libraries

Given the potential opportunities for making and distributing "pirate" copies, DRM is often understood as a necessary pre-requisite for public library loans of e-books. However, it is also important that such technical restrictions on sharing and multiple uses of e-books are adapted to reflect and implement, the "public lending rights" (PLRs) which are generally enshrined in national legislation. Many OECD countries are yet to confirm the extension of PLRs to e-books, but public interest concerns are likely to arise wherever DRM is seen to represent an obstacle to the exercise of public rights.

E-books offer libraries a number of important benefits including savings on storage, handling, ordering and distribution. The growing emphasis on online services also enhances the visibility of the larger public libraries which have built up extensive collections of digital resources. On the other hand, cost implications of the need to purchase multiple licenses for e-book versions of texts traditionally shared through interlibrary loans may need to be considered, particularly for smaller libraries. Costs may also be affected if territorial digital rights management (DRM) restricts libraries to purchasing geographically specific editions of books.

The DRM generally embedded in the vast majority of e-books being produced today does not allow for the kind of free and open access provided by, for example, public libraries. Nor does it allow the use of books as learning resources provided for children in school libraries; nor the research goals of university / academic libraries.

There are also concerns about royalty payments for e-books in libraries. "Public Lending Rights (PLR)"[110] is an internationally used system for ensuring that authors are financially compensated for the (unpaid) use of their books in public libraries. There are various options for calculating the amount due to an author and libraries rely on public funding to make these payments. It is not clear in a number of countries whether governments will support the extension of the system to cover e-books.

Following the 1992 European Community Directive on Lending Rights, all EU member states must now recognise the right of authors to be able to license the lending of their works by libraries or to receive some other form of payment. However, the obligation does not specify the situation as concerns digital content. The UK government has recently announced that it will not be extending PLR at this time to e-books and audio books as enabled by the Digital Economy Act in 2010. Registration for PLR, therefore, remains restricted to books which are 'printed and bound'.

Commercially driven enterprises,[111] can provide the investment and technical solutions for establishing digital libraries, but these raise (at least) two categories of policy concern.

- The first is that it will make the library and the access to its culturally important, and/or public resources, increasingly dependent upon the commercially driven actors who control and manage their digital access and rights. Some have expressed concern that companies cannot be presumed to be reliable defenders of the "public interest" or of "education", or "open access to knowledge". Yet these are the policy goals for which many library resources were established and funded.

- The second concerns competition: Already a rapidly growing market is evolving in the provision of e-books and related services to libraries. Powerful players, such as Google and Overdrive, dominate this new arena (particularly in English language markets) and their dominance may become entrenched by the nature of contractual agreements with libraries, and by the positive network externalities in this market.

OverDrive[112] is currently the leading global distributor of e-books to libraries and schools. It provides digital distribution services (including security and DRM) for more than 15 000[113] libraries and schools worldwide,[114] and supports devices: with Windows, Mac, iPod, iPhone, iPad, Sony Reader, NOOK, Android, BlackBerry and Kindle.[115] It has partnered with publishers, e-book platforms, software developers and libraries. Digital content at OverDrive-powered libraries and schools is available from anywhere at any time. Users incur no late fees because their e-book automatically expires at the end of the lending period. Libraries in the Overdrive network are not given actual files of the e-book, nor do they purchase ownership; they are simply given a license to secure access to the e-books represented by Overdrive's partnering platforms. Unlike their role with print books, libraries have no management function concerning the e-book resources, since this is all handled by Overdrive and the relevant e-book provider (see Figure 19).

Figure 19. Overdrive's business model

Source: Overdrive

In 2011, up to the end of September, the 15 000 libraries in the OverDrive network have tripled the number of e-books borrowed (compared with that for all of 2010). They have had more than 2 million new users (already doubling that of 2010). Total visitor traffic is now approaching an annual run rate of one billion.

The question of how to integrate e-books into public libraries, school libraries and university libraries, raises important social and public interest concerns. Potential future research could focus on the

specific ecosystem for authors, publishers and libraries in the developing digital-text environment. Key questions for policy-makers which could be addressed include:

i. The extension of "public lending rights" to e-books.

ii. Ensuring efficient, fair and socially beneficial processes for mass digitisation of copyright protected texts.

iii. Economic consequences of different policy models for authors, publishers, libraries and the public.

Accessibility of e-book digital content for people with disabilities and special needs

The increasingly wide-spread availability of digital book content has the potential to dramatically improve the amount and range of accessible material available to people suffering from "print disabilities".[116]The flexibility of digitalised data allows it to be simultaneously "translated" from a visual text display into voice-audio mode. It also means it can be shaped and tailored, by design, to suit the needs of particular visual or mental conditions. E-books not only provide new options for online access, carrying and storing of books for the mass market, they can also be utilised to dramatically expand the choices of literature and information accessible to those whose disability restricts their range of sensory perception of book content.

The United Nations convention on the rights of persons with disabilities recognises access to information an essential human right. "It's an essential aspect not only to have physical access to the Internet, but also to have accessibility to the information. That means that the services and products online are developed in a way and provided in a way that people with disabilities can actually use them…. accessibility for persons with disabilities is an essential aspect of inclusive society as it affects millions of people around the world".[117] "Actually, over 1 billion, according to the WHO, [with disabilities which] make it difficult or impossible for these individuals to access the growing array of digital products for education and beyond".[118]

Despite the fact that computerisation of the processes involved in book writing, transmission, editing and formatting, happened many years ago, the availability of the digital versions of book texts to date has remained extremely limited. The technology to provide simultaneous translation of digital text into simulated voice, and into braille, as well as the enhanced search features needed for research and use of reference material, has also been available for some time, but relies upon the availability of digital content which also supports the relevant software and DAISY standards.[119]

In early 2011, the International Digital Publishing Forum (IDPF) announced the completion of a major revision to EPUB (the global open standard interchange and delivery format for digital publications). The new EPUB 3.0 version now has status as a "Recommended Specification" and is publicly available[120]. Unlike previous versions, EPUB 3[121] is aligned with HTML5, and it provides support for the synchronisation of audio with text and a number of other enhancements designed for accessibility for disability. In addition it allows rich media (audio, video), interactivity (JavaScript) as well as global language support.

Unfortunately, just as the demand for accessible digital book content is poised to be finally met (through an effective implementation of EPUB 3), new software developments to allow richer features and "enhanced" e-books and apps poses a new threat to the availability of "books" fully accessible for readers with print disabilities.

"As digital publications evolve from digitised text into enhanced e-books and new forms of expression, EPUB 3 will dramatically expand the ability of authors and publishers to deliver richer experiences to their readers across disparate devices, in browsers and in apps."[122]

Enhancements such as more extensive use of images and graphics, multimedia and interactivity complicate and often prevent support of the capabilities which are vital to provide accessibility for the significant proportion of OECD populations challenged by print disabilities.

There are some promising signs in terms of access to e-books for those with print disabilities. For example, the World Intellectual Property Organization's (WIPO) TIGAR Project is a trial of new arrangements for the search, discovery and exchange of electronic files for books in accessible formats for qualified end users (*i.e.* those with print disabilities). Other initiatives include *bookshare.org* that distribute accessible EPUB files to the visually impaired for free.

Policy-makers should consider mechanisms for encouraging e-reader manufacturers to incorporate accessibility features and compatible standards in order that people with print disabilities may reap the potential benefits of e-books technology and availability. They should also consider policy options to encourage or ensure that publishers make e-books available in formats (such as EPUB3) which support the software developed for accessibility for people with print disabilities.

OECD governments should consider options for encouraging industry self-regulation initiatives to ensure, that e-books are made available in EPUB3 formats which support the software developed for accessibility for people with print disabilities.

Need for data on e-books

There is currently insufficient statistical data available to allow governments to monitor the impact of e-books on relevant markets and market players across the book industry. For most OECD countries, there is no central, or official, co-ordination point for such data. Unofficial figures on sales and growth are mostly collected by commercial industry associations and market consultants.

Without reliable, relevant and comprehensive national statistics, Governments have no basis for evidence-based policy-making or policy impact assessments in this area. Furthermore, without a recognised, national coordination point organising data collection, international co-operation and coordination to establish internationally comparable subjects and methods of data collection cannot be achieved.

At this stage in the evolution of a small, but dramatically expanding e-book market, the organisation and co-ordination of relevant data, at both national and international level, should be considered a priority. Cross-country analyses of various economic impacts, emerging trends and innovative models for commercial and policy adaptation represent vital inputs to effective policy thinking.

Key questions include what steps need to be taken by OECD governments to ensure organisation and co-ordination of e-book relevant data collection at national level or the potential role could be assigned to the OECD for cross-country collection and analyses of e-book market data and evolving policy / commercial adaptation models in OECD countries?

Further studies to inform policy decisions regarding e-books

The aim of this report was to introduce some key characteristics, and related policy issues, emerging from the recent growth of the e-books market across the OECD economies. It thus provides a platform for the consideration of next steps in terms of follow-up studies focusing on the most urgent and

significant policy concerns, and aiming to better inform the policy decisions facing OECD governments. In particular this should provide a more robust and practical analysis of the policy options, evaluation of related policies already adopted in certain countries, and discussion of the likely impact of alternative policy options on the various stakeholders.

Policy areas identified for consideration in this context include:

- Pricing models and their impact on the market for print and e-books.
- The impact of established, and emerging, copyright frameworks for the e-book market, and its stakeholders.
- The role of libraries in the provision of affordable public access to digital forms of knowledge and culture.
- The impact and significance of national, international and global projects for the mass digitalisation, and preservation, of the sum of all published works in OECD jurisdictions.

Relevant subject matter not covered in this report

It is recognised that this introductory report was limited in both the scope and depth of the subject matter covered. Particular areas which have been noted for possible supplementary study and analysis include:

- A focus on the consequences of e-books for physical book shops, and the success of emerging adaptation strategies for encouraging consumer interest and loyalty to bricks-and-mortar points of sale.
- An investigation and analysis of distinctive trends and developments characterising the introduction of e-books in different book categories. Greater attention could be given here to comparing the emerging business models, value chains and eco-systems for e-books in the scholarly, reference and professional categories. This would allow for identification and analysis of best-practice models which might better inform broader policy choices concerning libraries, public lending, and balancing the interests of consumer and content creators.
- The role and significance of metadata in the emerging e-book distribution chain.

1 *www.merriam-webster.com/dictionary/ebook.*

2 United Kingdom data to date is collected for digital sales overall rather than e-books specifically.

3 Books and E-books, Mintel, February 2011

4 http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=1565581&highlight.

5 AAP and BISG "BookStats" release of August 2011. Comment in "Tracking the Transition: BookStats charts the ebb and flow within publishing", By Jim Milliot, 12 August, 2011 *www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/48348-tracking-the-transition-bookstats.html*

6 Most e-publications consumed in Japan are in the form of comic books and short, serialized novellas.

7 For example, reading it on a device of their choice, lending it to others, or, denied access to it under particular conditions.

8 Both Google and Amazon are now providing cloud-based access to streamed e-book content. Arguably this model is already closer to one granting a "license to access".

9 They generally involve: protection and promotion of the production, sale and consumption of higher quality and culturally valued books, availability of diverse, original, creative, artistic content, support of niche, local and/or specialised book markets, the survival of independent booksellers, local publications and communities for book buyers.

10 The classification of intangible digital products as "services" rather than "goods" for the purposes of economic policy-making is the subject of long-running controversy, for example, in the context of WTO discussions. Those opposing their treatment as a service often argue (inter alia) that the mode of consumption should be the defining feature. Those favouring the 'services classification tend to focus on their mode of delivery (*i.e.* a telecommunications services network).

11 E.g. availability and use of online text books, search and data mining for research purposes, public lending and public libraries

12 "Print disability" refers to visual, physical or cognitive impairments affecting the ability to read normal printed text. George Kerscher coined the term "print disabled" (circa 1988-1989) to describe persons who could not access print. His definition is as follows: "A person who cannot effectively read print because of a visual, physical, perceptual, developmental, cognitive, or learning disability"...

13 *www.merriam-webster.com/dictionary/ebook.*

14 The publishing house also provides the author with financial support for the content creation stage, giving payments in advance of the expected revenues from the eventual book sales.

15 Publishers also have responsibility for censorship of offensive or illegal content from the text, and for establishing and administering the copyright in the content of the work (including collection of the subsequent royalties from its book sales).

16 "Will e-books raise or lower the total value of publishing?" Edward Nawotka, 14 April, 2011, Publishing Perspectives, http://publishingperspectives.com/2011/04/e-books-total-value-of-publishing/

17 *www.researchandmarkets.com/research/562085/book_publishers.*

18 Including legal, scientific/technical, medical and business segments.

19 Professional Publishing in the Digital Age: E-books in Libraries, 2010 Simba Information.

20 In scholarly markets the switch to e-books started in 2000.

21 *www.nytimes.com/2011/02/17/business/media/17borders.html.*

22 *www.usatoday.com/life/books/news/2011-02-10-1Abookstores10_CV_N.htm.*

23 Despite the clear and significant distinctions of the markets, products, and consumption, the earlier experience of digital disruption of the music industry is too often compared in the media with that now facing the book industry. Recognizing that many of the parallels drawn are of very limited value, and often result in misplaced pessimism, the report makes reference to the music industry in response to the misplaced comparisons and the resulting assumptions that its fate pre-empts that for the book industry.

24 The Evolution of News and the Internet. *DSTI/ICCP/IE(2009)14/FINAL* *www.oecd.org/dataoecd/30/24/45559596.pdf* .

25 ISO specification 32000-1:2008

26 Apple operating system running on iPhones, iPads and Macs.

27 Google provides free software to convert Google e-books to EPUB or PDF format for downloads to e-readers or computers.

28 Tablets are understood as portable devices which provide a platform of converged services, only one of which is e-reading. They also run specialized applications, and give online access to, a number of other information and entertainment services. The Apple iPad, for example, includes Internet browsing (Safari), e-mail and "chat" (MobileMe), music (iTunes), gaming, and books (iBooks). Apple's iPad was released in 2010 and is clearly the global market leader (representing almost 90% of the worldwide tablet market).

29 Handheld electronic devices, generally resembling a print book in size and shape, and dedicated to enabling the reading of e-books.

30 When Sony introduced its electronic book player, the "Data Discman" the Internet was still in its infancy and so e-books were purchased physically as discs

31 Source: Japan Statistical Yearbook 2011, edited by the Statistical Research and Training Institute, and published by the Statistics Bureau, both under the Ministry of Internal Affairs and Communications. www.stat.go.jp/english/data/nenkan/index.htm.

32 The largest mobile phone novel site, "Maho no i-rando" now carries over 1m titles and has over 3.5 billion visits a month.

33 Manga (Japanese comics) were an obvious category for consumers to 'pull' from the publishers for two reasons over and above their inherent popularity. Most importantly, manga collections are typically very bulky – more like carrying a phone directory than a normal magazine. Even on the less crowded return commute from Tokyo it can be extremely difficult to even open one of these tomes. Secondly, some readers may prefer others not to see what they are reading, especially if the manga contains explicit sexual content. Also,

Robin Birtle; *http://www.teleread.com/paul-biba/waiting-for-a-push-the-japanese-ebook-market-in-2011-by-robin-birtle/print/*.

34 SankeiBiz newspaper, July 2011.

35 Generally by provision of a Wi-Fi connection. Kindle, for example, also provides a dedicated 3G network connection for access to the Kindle book store.

36 A notable exception is Japan whose e-book market had an initial spate of early development during the 1990's. When Sony introduced its electronic book player, the "Data Discman" the Internet was still in its infancy and so e-books were purchased physically as discs. Publishers responded to increasing demand and by 1995 the market for electronic book discs was reported as being worth JPY 5 billion, and electronic book players, JPY 72m. This market was replaced by the development of e-books for mobile phone devices which experienced rapid growth from around 2003 onwards.

37 *i.e.* online access to bookstores and the ability to store a huge library of books in a device the size of one paperback.

38 By 2007.

39 This includes audio-visual and interactive content which most Internet users would already be familiar with via access to "multi-media" web pages.

40 Verso Digital's 2009 Survey of Book-Buying Behaviors, *www.slideshare.net/digitalbookworld/verso-digitals-2009-survey-of-bookbuying-behaviors*.

41 The overwhelming majority of e-book/e-comic content in Japan is accessed by, and read on, mobile phones (see section on Japan).

42 Most e-publications consumed in Japan are in the form of comic books and short, serialized novellas.

43 Most tablet devices (including the iPad market leader) were first released in most OECD markets during 2010.

44 See description below.

45 Dependent upon availability of appropriate data connection and application software.

46 *i.e.* rather than the hardware, software or telecommunications network which enables the access to, and the experience of, that content.

47 See discussion of US sales figures below.

48 Bhatt 2011 (see footnote 14).

49 IDC: 18 million tablets, 12 million e-readers shipped in 2010, Engadget, 10 March 2011, *www.engadget.com/2011/03/10/idc-18-million-tablets-12-million-e-readers-shipped-in-2010/*

50 Tablets and E-readers – United States – April 2011, Mintel Group Ltd.

51 See further discussion under e-book stores below

52 Worldwide Quarterly Media Tablet and e-reader Tracker, International Data Corporation (IDC), *www.idc.com/getdoc.jsp?containerId=prUS23034011*.

53 Hatchette Book Group, Harper Collins, Macmillan, Penguin Group, Random House, and Simon & Schumpter.

54 "US e-book customers to receive compensation in price-fixing lawsuit: Hachette, HarperCollins and Simon & Schuster agree to pay $69m settlement of claims they had colluded over e-book prices", The Guardian, 30 August 2012, at: *www.guardian.co.uk/books/2012/aug/30/us-ebook-customers-compensation-price-fixing?newsfeed=true*.

55 Ibid.

56 CAL Digital Publishing Trends Survey, Copyright Agency Limited (Australia), May 2011, *www.copyright.com.au/assets/documents/SurveyRawData_CAL%20Website%20Version.pdf/view.*

57 Source: Authors Feel Pinch in Age of E-books, September 26, 2010, JEFFREY A. TRACHTENBERG, in Technology section of the Wall Street Journal, *http://online.wsj.com/article/SB10001424052748703369704575461542987870022.html*.

58 *http://publishers.org/press/44/*.

59 *http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=1565581*&highlight.

60 *http://blogs.forrester.com/james_mcquivey/10-11-08-e-books_ready_to_climb_past_1_billion*.

61 UK data to date is collected for digital sales overall rather than e-books specifically.

62 Books and E-books, Mintel, February 2011.

63 Digital focus: the global e_book market, 14.03.11, Philip Jones, The Bookseller.com, *www.thebookseller.com/feature/digital-focus-global-ebook-market.html.*

64 The device which launched the popular demand for e-books was one most valued, not for its offer of an innovative, new kind of reading experience, but, rather, for its ability to simply replicate, the familiar visual and physical experience of reading a print book. Instant availability and access to online e-book stores was new, and the convenience of storing thousands of books in a neat hand held device was new, but the relationship with the object of reading was designed to be as close as possible to that provided by the print book.

65 *http://c0003264.cdn2.cloudfiles.rackspacecloud.com/School%20Library%20Ebook%20Report_2.pdf*.

66 *www.torontosun.com/news/torontoandgta/2011/01/02/16735896.html*.

67 http://chronicle.com/article/State-of-Washington-to-Offer/125887/.

68 *www.ecampusnews.com/technologies/florida-college-looks-to-become-ebook-pioneer/.*

69 *http://allafrica.com/stories/201105120587.html.*

70 Notably Apple, Amazon and Google.

71 For example, reading it on a device of their choice, lending it to others, or, denied access to it under particular conditions,

72 Financial Times, August 12, 2011,

www.ft.com/cms/s/2/c173d5ee-c293-11e0-9ede-00144feabdc0.html#axzz1XwcPt4a4

73 Virginia Postrel, Published: November 14, Washington Post, Business Section, *www.washingtonpost.com/business/amazon-e-library-is-publishings-profit-model-virginia-postrel/2011/11/13/gIQAtSkTLN_story.html.*

74 See Corynne McSherry, "The Kindle Lawsuit: Protecting Readers From Future Abuses," EFF Deep Links blog, 5 August, 2009, https://www.eff.org/deeplinks/2009/08/kindle-lawsuit-protecting-readers-future-abuses

75 Both Google and Amazon are now providing cloud-based access to streamed e-book content. Arguably this model is already closer to one granting a "license to access".

76 The Directive has been approved by the European Parliament and awaits final action by the European Council.

77 European Parliament (EP) (2011), Consumer Rights Directive, texts adopted at the sitting of Thursday 23 June 2011, Provisional Edition, www.europarl.europa.eu/document/activities/cont/201106/20110624ATT22578/20110624ATT22578EN.pdf.

78 Wunsch-Vincent, Sacha, Hold, Arno (2011), Towards Coherent rules for Digital Trade: Building Efforts in Multilateral versus Preferential Trade Negotiations, Working Paper n°2011/64, July 2011, www.nccr-trade.org/fileadmin/user_upload/nccr-trade.ch/wp3/3.8/wunsch_hold_WP_final_11-07-08.pdf.

79 World Trade Organisation (WTO) (1998), The Geneva Ministerial Declaration on Global Electronic Commerce, 20 May 1998, www.wto.org/english/tratop_e/ecom_e/mindec1_e.htm.

80 OECD (2010), Multilateralising Regionalism: The Case of E-Commerce, Lior Herman, OECD Trade Policy Working Paper No. 99, 28 June 2010, www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/TC/WP(2009)42/FINAL&docLanguage=En.

81 More recently backed by statutory legislation in some countries.

82 They generally involve: protection and promotion of the production, sale and consumption of higher quality and culturally valued books, availability of diverse, original, creative, artistic content, support of niche, local and/or specialized book markets, the survival of independent booksellers, local publications and communities for book buyers.

83 Printed on the back cover of all French published books.

84 Hagens Berman Sobol Shapiro

85 Which, together, control 85% of the most popular fiction and nonfiction titles in the United States book market

86 "Ohio, Texas, Maryland Reach $69 Million E-Books Deal", BloombergBusinessWeek, 29 Aug 2012, at: www.businessweek.com/news/2012-08-29/ohio-texas-maryland-reach-69-million-e-books-deal.

87 Reported by Benedicte Page and Leigh Phillips in the Guardian, March 4, 2011. www.guardian.co.uk/books/2011/mar/04/e-books-publishing.

88 Details regarding progress of the investigations and which publishers in which Member States are involved have not yet been made public.

89 Article 101 of the 2007 Treaty of Lisbon prohibits "…agreements between undertakings, …… which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the common market..."

90 Europa Press Release IP/02/461. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/02/461&format=HTML&aged=0&language=EN&guiLanguage=en

91 Mario Monti

92 *op cit.*

93 "Investigation into arrangements between certain publishers and retailers for the sale of e-books", United Kingdom Office of Fair Trading, Case reference: CE/9440-11, at: *www.oft.gov.uk/OFTwork/competition-act-and-cartels/ca98/closure/e-books*.

94 *United States v. Microsoft*, 253 F.3d 34, 55 (D.C. Cir. 2001). The "applications barrier to entry" was premised on the argument that it was costly and time consuming for independent software developers to write applications for more than one operating system

95 By code, Lessig means "the software and hardware that constitutes cyberspace as it is—the set of protocols, the set of rules, implemented, or codified, in the software of cyberspace itself, that determine how people interact, or exist, in this space. This code, like architecture in real space, sets the terms upon which I enter, or exist in cyberspace. It, like architecture, is not optional. I don't choose whether to obey the structures that it establishes — hackers might choose, but hackers are special. For the rest of us, life in cyberspace is subject to the code, just as life in real space is subject to the architectures of real space". From "Code V2", copyright 2006, by Lawrence Lessig, published by Basic Books, cc Attribution-Share Alike

96 As above.

97 "A Different Perspective on DRM", US Federal Trade Commission, 9 March 2007 at: www.ftc.gov/speeches/rosch/Rosch-Berkeley-DRM%20Speech-Mar9-2007.pdf

98 *E.g.* availability and use of online text books, search and data mining for research purposes, public lending and public libraries

99 Cover to Cover: A Market Analysis of the Australian Book Industry, published by the Department of *Innovation, Industry, Science and Research, May 2011*

100 Attributor. (2010, October). *Demand for Pirated E-books Research.* Retrieved May 19, 2011, from *www.attributor.com/docs/BookResearch_Attributor_October2010.*

101 Bradshaw, T. (2011, May 17). *Women help fuel rise in ebook piracy.* Retrieved May 19, 2011, from Financial Times: *www.ft.com/intl/cms/s/0/38c0f674-7ff3-11e0-b018- 00144feabdc0.html#axzz1MrMqYDt7.*

102 Book Industry Study Group. (2011, January 6). *College students want their textbooks the old-fashioned way*. Retrieved May 19, 2011, from http://www.bisg.org/news-5-603-press-releasecollege-students-want- their-textbooks-the-old-fashioned-way-in-print.php

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107 Wherever DRM is absent, or technological solutions have been developed to bypass it

108 There are two key global fora which specialise in IP: the World Intellectual Property Organisation (WIPO) and the Trade Related aspects of Intellectual Property rights (TRIPs) Council, which is part of the World Trade Organisation (WTO). WIPO is the United Nations (UN) agency which administers most of the global IP treaties. In recent years, divisions between the developed and developing world have led to a general stalling of discussions on a range of issues. The TRIPs Agreement is one of the agreements underlying the WTO, and ties a number of the key provisions of international treaties into the WTO dispute resolution system, meaning that violation of those provisions can lead to trade sanctions within the WTO framework. With the basic structure of rights generally established by international treaties and in particular the TRIPs Agreement, attention in international negotiations – particularly Free Trade Agreements (FTAs) and most recently the Anti Counterfeiting Trade Agreement (ACTA) – has focused on effective enforcement of rights.

109 This refers to the user's ability to download the e-book to other devices which are registered in his/her own name

110 www.plr.uk.com. 40 countries have recognised authors' lending rights in their legislation, although only 29 of these have taken the next step and set up working PLR systems that provide payments to authors. Each of the 29 has a slightly different approach.

- Some make payments on the basis of book loans (*e.g.* the United Kingdom, Germany, the Netherlands, Israel).
- some make payments to authors for each of their books held by libraries, regardless of whether they are borrowed (*e.g.* Canada, Australia, Denmark); some countries do both (*e.g.* Iceland).
- Others make payments in the form of grants related to overall government expenditure on new books for libraries (*e.g.* Finland).
- Some countries have placed their PLR legislation under copyright (e.g. Germany and Austria).
- Others treat PLR as a separate right (*e.g*. the United Kingdom). But what unites them all is the fact that they are making some form of payment to authors for the free use of their works in libraries.

111 For example *i*) the "Google Books" project which involves the scanning and digitalizing of all of the books stored in libraries across the US Access will be by paid subscription; and *ii*) Kindle's new "Library Lending" service, which is partnered with "Overdrive" (see below) to give Kindle users the ability to borrow e-books from their local library.

112 *www.overdrive.com*.

113 Of which around 11 000 are in the United States.

114 Including United States, Australia, Canada, South Africa, Turkey, and United Kingdom.

115 Currently only in the United States.

116 "Print disability" refers to visual or cognitive impairments affecting the ability to read normal printed text

117 SHADI ABOU-ZAHRA, representing the IGF Dynamic Coalition on Accessibility and Disability Sixth Annual Meeting of the Internet Governance Forum 27 -30 September 2011 United Nations Office in Nairobi, Nairobi, KenyaSeptember 29, 2011 - 10:30AM
www.intgovforum.org/cms/component/content/article/108-transcripts/861-main-session-access-and-diversity

118 *op cit.*

119 Digital Accessibility to Information Systems (DAISY) develops software and standards for simultaneous text to audio translation as well as other manipulations of digital text meeting accessibility needs of people with disabilities and special needs.

120 At *http://idpf.org/epub/30*.

121 The DAISY Consortium has played an integral part in the development of EPUB 3 and will advocate for EPUB 3 content which has the features and functions necessary to make the publication fully accessible.

122 "EPUB 3 Becomes Final IDPF Specification", International Digital Publishing Forum, 11 Oct 2011, http://idpf.org/news/epub-3-becomes-final-idpf-specification

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