

eBooks: The Revolution Will Be Digitized

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Introduction

The digital revolution continues to modernize, disrupt, and fundamentally change the way in which we engage with our surroundings. The resulting increase in interconnectedness is continuing to catalyze the human thirst for immediate access to information and content. Digital music was among the first industries affected and the impact has now permeated all sectors, in particular, the publishing industry. With the steady shift towards online and digital consumption of newspapers, magazines, books, and periodicals, established institutions have fought to stay afloat and relevant in a fluid marketplace. In fact, eBooks, audio books, and online eBook stores have proliferated with the explosive growth of cell phones and tablets. In short, we are seeing a massive shift not only in the way we consume our reading but in the way we access it.

Starting with the major purchase of Random House by the German company Bertelsmann in 1998, book publishing evolved from the centuries old practice of printing and distributing physical books into one of the most important parts of global content industries. To underscore this point, according to a 2014 Wischenbart study, the book publishing industry has an estimated value of \$151 billion (including trade, educational and STM - or science, technical and medical - publishing), bigger than music (\$50 bn), video games (\$63 bn), magazines (\$107 bn) and even the movie and entertainment industry (\$133 bn).¹

As with technology in general, this industry is going to start having profound effects not only in the developed countries that currently dominate the content generation and distribution, but will increasingly see the development of indigenous industries, particularly in the emerging economies of the BRICS nations. These nations will have to formulate strategies to invest in their own infrastructure to keep up with the prevailing trends and devise policy on how to approach the next wave of content digitization. Authors, like many in the US and Europe, will be able to self publish and release their material to wider audiences across the world, unrestricted by the dictates and distribution channels of the traditional publishing companies.

Amidst all of the changes, there are many questions that should be asked and explored: Are we able to draw any conclusions about how eBooks will fare by looking at other digital content industries? How will the economic interests of publishers and rights owners influence the spread and use of eBooks? Will the globalized media corporate landscape impose a “developed-country” first approach or is there room for developing and emerging countries to adapt their own strategy? Can traditional print continue to coexist with the explosive growth of its digital form? How can governments aid in the development of this industry?

This paper will seek to explore some of the changes that the digital revolution has brought upon the publishing industry, libraries, and the consumer in various countries

¹ Wischenbart, Rudiger. “Global eBook: A Report On Market Trends and Developments.” Spring 2014, Page 17.

and what impacts it may have in the future. It will seek to answer some of the questions posed above while presenting necessary facts to further discuss others. Whether a passive observer or an active participant in the industry, it is impossible to ignore the challenges and opportunities that this latest iteration of the digital revolution has introduced. In this paper, I will claim that eBooks are a social and global necessity but the lack of standards is curtailing its lethargic entry into the market. I will argue that exactly because eBook technology is the last piece of the content industries' assimilation into a globally interconnected world, its development and promulgation will trigger major changes in the publishing industry and in our ways of consuming books.

I. The Present Day

From a macro perspective, digital networks have become the central organizing principle of multinational companies. These networks form the infrastructural basis of the global flow of information, commodities and currencies. In the digital economy, innovation and competitiveness are dependent on an ability to capture, analyze and process metadata, analytics, and anticipate customer purchasing choices. Therefore, it can be argued, digitized information has become one of the most important and valuable products that the the evolving digital economy produces. Digitization makes this information available at all times to those who have the technical competence, financial means and infrastructure for access.

This basic principle is transforming the landscape of the media and content industries giving rise to what has been termed "New Media Industries." Increasingly, media companies are concentrating their core competencies in digitizing traditional content providers such as television, movies, radio, newspapers and magazines. This was most evident in the merger of AOL/Time Warner, acquisitions made by News Corp and Bertelsmann. The Internet has given these traditional media companies new ways of distributing their content. The publishing industry is become one of the last major components integrated into the global content mix. The last ten years has seen the traditional publishing industry in steady decline to its lack of integration with the digital economy and, as a result, they are only now slowly wading into the digital realm.

The technology revolution, with its novel and more efficient distribution channels, has given traditional publishers a host of new possibilities against a backdrop of increasingly powerful competitors. This evolving dynamic is forcing publishers and entrenched distributors into new roles, evolving from their more traditional role as book publishers to to content providers in the form of eBooks and ePublications.

This section explores these concepts with a focus on the media industry's consolidation and the emergence of the new economy companies that are adapting and innovating in the area of publishing. It will look at consumer habits and how they are driving the new strategies of these companies both in the developed and South. While there are numerous examples from around the world, this paper will seek to take highlights from the major markets of the US and Europe, followed by an overview of the largest developing markets for eBooks, notably India and China. While further examples of the

development of eBooks in other developing and emerging economies would have been useful, due to the infancy of the industry, very few concrete statistics and data sets exist.

1. A Changing Landscape - The US and Europe

Not surprisingly, the majority of growth in the eBook industry has been focused in countries such as the US, UK, Germany, and to a lesser extent France and Spain. Much of this growth can be attributed to the location of the major media companies that control the vast majority (by revenue) of the book trade: Penguin Random House (German and British), Hachette Livre (France), HarperCollins (US, Britain, Australia), Simon & Schuster (US), and Macmillan (Germany). However, the last several years have seen a large amount of consolidation, both vertically and horizontally, indicating large capital commitments and positioning around the growth of eBooks. This is most notable in the massive Penguin and Random House merger that was widely analyzed to be a necessity to use size as leverage in order to stay relevant against some of the new media companies.² However, these companies seem to be merely attempting to adapt to the even larger powerhouses of the consumer-facing device manufacturers and content distributors that are shaping the future of the industry in the form of Apple, Google, and Amazon.

The multi-pronged spike in competition can be seen as one of the main catalysts of the decline of book chains, that only five years ago, were considered market leaders. They are confronting significant challenges to reinvent themselves in the shifting landscape being pioneered online and through the digital distribution channels that consumers are increasingly relying on. These shifts are being felt at the retailer level across all the countries where eBooks have been adopted in larger numbers and have put significant pressure on traditional brick and mortars: in the US (Borders declared bankruptcy and Barnes & Noble has been struggling to break into the digital eReader world the Nook), Germany (with both of its leading book chains, Thalia and Weltbild, struggling), France (with Fnac restructuring, and the second largest book chain, Chapitre, as well as the multimedia Virgin Megastore folding), or the Netherlands (with the book chain Polare closing).

All of these developments come as no surprise when put into context by the actual sales numbers. According to the Book Industry Study Group (BISG), the value of the eBook market went from just over \$1.1bn in 2009 to over \$4.8bn in 2013. When placed against the context of a still unstandardized market in terms of technology, delivery, fees, digital rights management, or subscription models, these numbers are more than impressive. The same period saw the eBook share of the total publishing trade revenue

² Davidson, Adam. "How Dead Is the Book Business?" The New York Times. November 13, 2012. <http://www.nytimes.com/2012/11/18/magazine/penguin-random-house-merger.html?ref=books&pagewanted=all&r=0>

rise from 9% to just over 23%.³ The importance of these numbers are further increased when put against the backdrop of overall declining sales in the traditional print sectors of the major companies. With the many lawsuits by consumers (against Apple and book publishers for price fixing) and corporate battles by the content owners (authors and publishers against Amazon), the market has not yet fully matured and once the case law has settled in these areas, it can be logical to expect an increase in the titles available and the revenues they generate, much as we saw with digital music when it was first popularized by Apple's iTunes music store and later popularized by other vendors such as Amazon and Google.

The future continues to look bright for the eBook and digital publishing industries in the US and Europe. A 2014 PriceWaterhouseCoopers study entitled "Entertainment and Media Outlook," estimated that just the consumer eBook industry (not academic or scientific) will generate \$8.2 billion in sales by 2017, surpassing the traditional print market which is estimated to shrink by half. They are also expecting that eBooks, as a share of total sales will more than double from its current 16% to over 38% in the next three years in the US.⁴ Europe is also likely to see similarly impressive growth. Forrester Research predicts that Europe will become the largest eBook market in the world by 2017 with sales worth approximately \$19 billion.⁵

While there are challenges to strategy and many assumptions that underpin these numbers, as will be discussed in the sections that follow, the industry itself looks poised for significant growth. More than half of the titles currently available on the market through established vendors are in English and the sales numbers will only continue to grow as other countries help promote content digitization through various strategies in their local languages.

2. A Changing Landscape - India

India has become one of the top markets for digital publishing outside of the US and Europe. However, the market is still in its infancy and dominated by English language texts. For local Indian publishers, 2013 sales of eBooks accounted for less than 1% of their total sales for the same period. While the numbers are only slightly better for STM eBooks at 2%, this segment is contributing 84% of the profit. Despite these underwhelming numbers, a recent market study by the Indian market research firm Netscribes predicts that the local eBook market will see a 20-25% growth in the next two to three years.

Bowker's *Global E-Book Monitor* report in 2012 estimated that 2% of the Indian population purchased an ebook during the report's data collection period. It further revealed that the typical Indian eBook consumer holds a college degree and is more

³ Book Industry Study Group, "BookStats Volume 4." Fall 2014

⁴ PriceWaterhouse Cooper, "Entertainment and Media Outlook 2014 - 2018" June 2014

⁵ Forrester Research, "eReader And eBook Adoption Forecast, 2012 To 2017" January 2013

likely to be a male between 25-34 years of age, with a full time job, residing in a city. This is consistent with the findings that the majority of eBooks that were downloaded in this period came from the business and academic categories.

With approximately 200 million children under the age of 18 and about 35% of those residing in urban areas, the market of India's future eBook adopters will continue to develop. Given the prevailing trends of younger generations growing up in a technology driven society, India's eBook future holds great potential and the next ten years will play a pivotal role in the way that the future generation interact with this emerging industry and the way that publishing companies and the distributors will respond to their needs.

However, the market demographics pose a challenge for the English dominated texts and an opportunity for publishers who can capitalize on eBooks in local languages. According to the latest Indian census in 2011, the literacy rate in the country has risen to 74.04% but only 6% of those are fluent in English, the dominant language of the eReader and eBook technologies leaving a very small market for the current offerings.⁶

Indian language eBooks remain underrepresented in the market. This is due to a number of factors including technological gaps and an inability for existing eReaders to properly display the character sets. Outside of English, Hindi remains the dominant language for eBooks in the country and this is mainly due to governmental support for the digitization of those texts. As is the case in many other non-English speaking countries, companies like Swiftbox have started to fill the void. They are currently working with more than 20 publishers to help digitize their content using proprietary algorithms. Most interestingly, two-thirds of their sales are to Indians living abroad in the US and the UK indicating that the market continues to be global in nature regardless of the place of the content's origin.

The government's role in aiding the development of digitized content is paramount in the emerging and developing economies. The National Book Trust (NBT), an arm of the Indian government responsible for the promotion of reading and book culture, is now undertaking the task of digitizing its catalogue. In partnership with a the Indian company Ninestars, NBT will start making these titles available through the Ninestars platform for both Android and iOS expanding upon the already free options available to eBook readers around the country.

For other trade publishers who have been experimenting the ePublishing industry since approximately 2012, it is too early to tell or predict what level of success they will realize. While they are still hampered by concerns surrounding copyrights and book piracy, there are indications that the government is seeking to support and reassure these companies by introducing legislation such as the revised Copyright Act (2012) and the strengthening of the Indian Reprographics Rights Organization (IRRO). These concerns extend also to the print book market that deals with not only a broken

⁶ Government of India, "2011 Census." <http://www.censusindia.gov.in/2011-prov-results/indiaatglance.html>

distribution chain but the lowest priced books in the world. Despite this, it is estimated that book publishers lose approximately 20% of sales due to illegal copies of book printed in the black market.⁷ The enacting of these bills will help to further bolster the protections afforded to local and international content providers giving them greater economic reasons to further their investments.

In addition to the legislative changes mentioned above, the Indian Government is undertaking several digital literacy initiatives to promote eBooks in the academic fields and encourage digital literacy. National initiatives such as “the Rs 4612 crore (\$768.7 million) *National Mission on Education through ICT (NME-ICT)* have been introduced. The NME-ICT is working in collaboration with other related missions and schemes— *National Knowledge Network, Scheme of ICT in Schools, National Translation Mission, and the Vocational Education Mission.*”⁸

However, one of the most important components that will help continue India’s drive into the digital content industry is the technical know-how of the well-regarded outsourced IT software and services industry. According to a ValueNotes study, “60% of global publishing industry’s outsourcing of business processes comes to India. Conversion and digitization of backlist and archives tops the list of services sourced.” This would put India ahead of the US, UK, and Europe in terms of the industry’s overall outsourcing and can mainly be attributed to it’s advantage in lower cost, highly skilled labor.⁹

While eReaders like the Wink and the Pi attempted and failed to gain significant market share, devices like the Kindle and other full use tablets have made inroads into the market. The eBook consumption trends on these devices currently seem to be towards the consumption of the free, out of copyright books. But standardized pricing for eBooks compared with the low market price of physical books continues to be a hurdle that many of the publishers and consumers will need to reconcile.

3. A Changing Landscape - China

With one of the highest literacy rates in the developing and emerging economies, and very well developed digital infrastructure, China has a number of factors that enable it to emerge as one of the next decade’s digital publishing powerhouses of the world. Between its sizable manufacturing base of the world’s electronics, vast economic resources, entrenched global content provider companies, and the demonstrable support of the central government, China has indicated its intent to make its mark on the growing move towards digitization.

⁷ Wischenbart, Rudiger. “Global eBook: A Report On Market Trends and Developments.” Spring 2014, Page 74.

⁸ Wischenbart, Rudiger. “Global eBook: A Report On Market Trends and Developments.” Spring 2014, Page 74.

⁹ “Indian Publishing Offshoring to Grow To \$1.2 Billion by 2012.” ValueNotes. April 29, 2009. <http://www.sourcingnotes.com/content/view/480/60/>

2013 saw China overtake the United States as the largest eCommerce market in the world.¹⁰ Combined with the world's largest mobile phone penetration of approximately 1.1 billion people, China continues to provide a significant market opportunity for the growth of eBooks and digital content. Keen to capitalize on this potential, China Mobile announced plans in 2010 to build China's largest eBook store. Preliminary numbers from the testing period showed that it attracted over 15 million users, or approximately 10% of the mobile reading demographic, during its initial four month trial.¹¹ Such market opportunities led companies like Amazon to launch their own Chinese language eReaders in the country in 2013 and with Apple's iPhone gaining regulatory approval around the same time, competition from outside firms will continue to challenge the dominance of entrenched firms like Tencent and Dangdang.

Government support is also evident in the digital publishing sector. The 12th Five-Year Development Plan for the Press and Publication Industry that was released in 2011, approved "23 projects in support of digital publishing or technological innovation. The creation of five new "national digital publishing bases" in 2011 made for a total of nine such enterprises, with a combined revenue of ¥42 billion (\$6.86 billion) , or 30.5 percent of total Chinese/global revenue for digital publishing in 2011."¹² This ambitious plan has been bolstered by strong support from the General Administration of Press and Publication (GAPP) that undertook significant strides to support the development of the digital publishing industry in the country. Chief among these are the designation of special funding for cultural development in the digital publishing realm, encouragement of bank financing and strategic partnerships for firms in the digital publication industries, and agreements signed with the major mobile operators to help catalyze the digitization process and distribution of eBooks.

There are a number of factors that are shaping the Chinese digital publishing industry for the future: (1) Of the 51% of mobile users who actively download applications to their phone, 68% identify eBooks as the category they engage with the most, with that figuring rising to 76% among younger users; (2) the huge popularity of mobile devices for eReading; and (3) the vast amount of free material that is offered by service providers to their consumers. And the market for online literature is still growing rapidly, as shown by a report from iResearch, with revenue going from ¥150 million (\$24.5 million) in 2010 to ¥600 million (\$98 million) in 2011.¹³

¹⁰ "Tencent's Worth." *The Economist*. September 21, 2013. <http://www.economist.com/news/business/21586557-chinese-internet-firm-finds-better-way-make-money-tencents-worth>

¹¹ "China Mobile Platform Puts Digital Publications At Fingertips." People's Daily Online. May 6, 2010. <http://english.people.com.cn/90001/90778/90860/6975119.html>

¹² Wischenbart, Rudiger. "Global eBook: A Report On Market Trends and Developments." Spring 2014, Page 68.

¹³ Zhang, Lisa. "China Market Insight." *BIBF* 2012

Despite the significant progress and support that the publishing industry enjoys, there are still some hurdles ahead. Software standardization remains a big issue particularly for smaller firms. As of now, each large publisher is using their own technologies and eReaders to try and build their own market share. This presents an issue, if not a roadblock, for the smaller firms who do not have enough capital to invest in their own platforms. Investing money towards unproven standards is far too risky since it can become obsolete and their smaller capital bases will make transitioning to another platform cost-prohibitive.

China faces the looming issue of digital piracy, a factor that has inhibited further growth of the market. Even domestic companies have sued each other for copyright infringement as was the case with Shanda and Baidu.¹⁴ According to various sources, there are over 500,000 sites that host pirated materials in China and almost 95% of book downloads in the country are thought to be unauthorized due to the copyright infringements. However there seems to be a great deal of optimism that these issues can be dealt with in the short and medium term due to the presence of successful local companies like Shanda who are establishing legal guidelines on the appropriate use of copyrighted material with support for local municipalities like Shenzhen.

Despite these hurdles, the last ten years have seen obvious interest from multinational companies to enter the Chinese market. At this point, most international publishing companies have established joint ventures (a requirement of the Chinese government) with local companies to take advantage of the massive consumer opportunity of the market. Just a few examples of these companies are Penguin (2005), Hachette (2009), Amazon (2004), and Cambridge University Press. All of these companies have a vision for the future of ePublishing in the country and will do a great deal to help develop it. The interesting thing to watch for the future will be how domestic companies compete with their local market knowledge and what impact the growing middle class will have on the consumption of this evolving content industry.

II. From the Digital Divide to the Content Divide

As is described in the opening section, eBooks require three things of the consumer: an Internet connection, a device to read them on, and disposable income for purchasing. For the developed world, these don't pose enormous obstacles. However, the digital divide further exacerbates these issues for developing countries and is creating a new form of collateral separation: a content divide. Even if the criteria of having the device is met, Internet infrastructure in many areas may be lacking as are the funds to purchase the eBooks themselves.

As has been well documented, there are significant gaps between the infrastructure and implementation of technology in the developed and developing world. Developed

¹⁴ Fletcher, Owen. "Chinese E-Publisher Plans Baidu Copyright Lawsuit." PC World. December 18, 2009. <http://www.pcworld.com/article/185060/article.html>

nations like the US, Canada, Europe, Japan and South Korea enjoy large bases of research and development, highly developed Internet infrastructure, and highly skilled workers. That is why the majority of the technology pioneering companies have emerged from these nations. In contrast, countries from the developing world not only suffer from infrastructural limitations but issues surrounding brain drain, political instability, sizable public sector debt, and poor investment climates making technology development and implementation a low priority.

However, the low barriers for entry to eBook publishing and the inevitable thirst for knowledge leaves some small outlets for hope. While book consumption has decreased in developed countries over the past years, it has actually increased in emerging and developing economies.¹⁵ This can best be explained by the rise of a growing middle class that is increasingly looking to books as a source for education and entertainment.

Even in areas where robust Internet connections are lacking, virtually omnipresent cell phone signals are providing a medium for getting connected to eBook stores supersedes infrastructural challenges. Organizations like WorldReader and USAID are teaming up to bring Kindle devices to the developing world. They have expanded their operations to nine African countries and have placed over 700,000 books in the hands of approximately 12,000 children.¹⁶ These devices have built-in Internet connections that take advantage of the pervasive cell phone networks in many of the developing countries where they operate. What's more is that school children are getting access to a whole new range of authors. Previous to the introduction of eReaders, many schools had to deal with donated books by Western authors that had little relation to their personal experiences. eReaders have introduced the ability to read local authors that are self-published through the online bookstores like those that support the Kindle from Amazon.

But apart from charitable donations and NGOs, eBooks still face significant hurdles in having a broad societal impact. eReaders such as the Kindle or Kobo are still far too expensive for mass market penetration. According to a 2013 survey by the International Telecommunication Union (ITU), 30.6% of US citizens had access to personal eReaders compared to 0.1% in developing countries. These figures only serve to underline the formidable challenges of eBook consumption as a revenue driver in developing countries. Because of the prohibitive financial issues for consumers, ePublishing initiatives are generally the exclusive domain of governmental initiatives and universities, if at all.

More specifically, and to reinforce some of the issues pertaining to digital rights management (DRM) discussed in the next section, the ePublishing business models

¹⁵ "Annual Report 2013-2014." International Publisher's Association. October 2014.

¹⁶ Neary, Lynn. "E-Readers Mark A New Chapter In the Developing World." December 2, 2013. National Public Radio. <http://www.npr.org/blogs/parallels/2013/12/02/248194408/e-readers-mark-a-new-chapter-in-the-developing-world>

that work in the United States and Europe would be generally inapplicable to emerging markets, let alone developing countries. Much of what has exacerbated the digital divide is only compounded when it comes to digital content. The prohibitive factors include, but are not limited to, a lack of a stable and consistent access to electricity, lack of distribution of affordable hardware devices, poor infrastructure, expensive data access over 3G and 4G networks, among others. Furthermore, credit cards, the backbone of the eBook purchasing mechanisms, do not enjoy the preponderance or omnipresence that they do in developed countries making it almost impossible for these consumers to engage in online purchasing.

All of these factors will contribute to what is widely being termed the content divide. While the marketplace will grow for self-published authors, the medium for individuals in developing countries to read their texts will be limited. Cell phones have often been pointed to as another place to read such texts but the obvious hurdle of small screen sizes will most likely ensure that the ePublishing realm will remain limited at best.

III. The Digital Rights Management Hindrance

There are two primary factors that hinder eBook diffusion and limit the industry's development: the prohibitive cost of eReaders and the lack of standardized digital rights management (DRM) systems. The pricing issue primarily contributes to both the growing digital divide between rich and poor within countries as well as those between the developed and developing world; established DRM systems create hesitancy on the part of publishers to undertake a full investment and strategic vision for the eBook platform.

eBooks are still some ways off from completely displacing traditional books as the primary source of reading material. Aside from the price points, eBook technology is really predicated on leasing a book on a specific platform rather than owning it outright making the aspect of sharing, borrowing or even reselling virtually impossible. Even when it is possible, there are significant restrictions placed on the sharing time allowed and many paid premium account requirements. This keeps the industry in the hands of a few early adopters who are somewhat well versed in computers and technology. How quickly the technology takes off is highly dependent on the often conflicting interests of publishers, authors, distributors, academic institutions and libraries. The resolution of these conflicts resides in an ability to negotiate DRM.

DRM effectively grants permissions and rights among the parties to an eBook transaction. The purchaser is granted rights upon payment and a unique hardware identifier is matched against the digital copy of the book that is sent to the device. This system ensures that the book can only be used by the owner on their device and not given away freely to another interested reader.

The hindrance to standardizing and further establishing a mutually beneficial DRM system is not necessarily technical since the music and film industries have already built the systems required. Instead, as with any nascent industry, the issue is specific to the

social and business culture of the stakeholders. Consumers, Authors, booksellers, libraries and public authorities all make a claim to some form of cultural and legal rights and these often create a source of conflict as will be explored in the “Libraries” section later in this paper. The rise of metadata issues and matters of privacy might be of concern to a customer who may not want their reading habits stored on remote servers to be later used in targeted marketing. Further, this customer may want to share this book with a friend which would conflict with the publisher’s desire to profit from further book sales. Libraries may claim that as a center for learning and culture, they should have the ability to lend out a digital book as freely as they can with a physical copy, yet publishers and distributors may balk at that and refuse to even release a digital copy to the institution.

In addition to the many conflicting interests and rights on a national or regional level, significant differences also occur from culture to culture and from country to country. Customer rights and copyright laws vary to a great extent across borders and are constantly in flux in an effort to stay abreast of the new requirements of the digital revolution as was detailed in the country based descriptions in the previous section. Hesitancy in this area will lead to a stuttering start to establish open standards for DRM in the eBook industry and will cause companies like Apple and Amazon to measure their approach to investing in emerging and developing markets.

The reality is that in a global content industry such as eBooks, there will be huge hurdles to having a single DRM system that complies with the conflicting needs of all the stakeholders across all countries. The result will most likely be heterogenous and competing DRM systems with different compromises that represent and reflect the culture of each market. This will also create many more eReader companies with competing platforms reducing the portability and ease of use arguments for consumers while increasing market risk for publishers potentially slowing down the diffusion of eBooks.

The eBook DRM issue will be one of the primary constraints that all stakeholders will need overcome for the eBook industry to truly globalize. This will need to be addressed at the local, national, and multilateral level in conjunction with cultural priorities and stakeholders. But this is not meant to cast pessimism over the entire industry but instead to highlight some of the hurdles. eBook technology is still in somewhat of an infancy and given the profit to be made, the balance between accessibility for the consumer and profitability for the publishers and distributors, improvements in technology will be an inevitability that could propel eBooks to the status of digital music in the next five to ten years.

IV. From Present to Future

The move from brick and mortar bookshops to the digital realm, like with the content industries that preceded it, is completely reinventing the way consumers, authors, and publishing companies are interacting with one another. Value chains are being

reinvented, entirely new markets and categories are emerging, new customers are being engaged, books are becoming cheaper and more accessible, and, as a result, entrenched stakeholders are emerging, adapting, or disappearing from the scene. This section will discuss some prescriptions for the main actors that will be directly affected by these changes: publishing companies and libraries, with some discussion on the effects on academic institutions.

1. Publishing Companies

As with any transition that occurs during times of upheaval, the publishing industry in every country will be poised to see numerous new entrants into the market and the demise of some of the older and more established companies. Mergers and acquisitions will also likely dominate the field as was previewed by the Penguin and Random House merger. Digital companies will most likely join the fold as publishing companies shift resources towards the burgeoning eBook industry. The impacts and long-term business models of these newly formed global content departments will also be impacted by a new segment to the industry: the self-publishers. Publishing companies will need to start creating added value to the consumers of eBooks and this shift is already starting to emerge.

The primary area that the publishing industry will focus on will be to identify which devices consumers will read their eBooks on. eReaders have experienced some stagnation in growth where tablets have grown considerably. This has prompted companies like Barnes & Noble and Amazon to release app-based readers compatible with Android and iOS to ensure brand loyalty even if the consumer is not purchasing their hardware. These innovative approaches to handling hardware stagnation will keep these companies relevant within the eBook industry and ensure their scalability should a new hardware standard be invented.

The second area of focus will be in optimizing user experience. While consumers have unarguably demonstrated an interest in eBooks for the convenience and portability, most eBooks are functionally the same as reading a print book. There is no value-added for the reader outside of the digitized book itself. This issue has now emerged at the forefront of publishers' strategies. The future of eBooks will be based on much more than text on a screen. The sophistication of modern-day tablets will provide a level of interactivity that can enhance the user "experience" with his or her book. For example, video can enhance vocational books that explain specifics on how to repair a computer or animate worlds that are described in a fictional novel; audio can help younger readers learn new words or any reader properly learn new languages. These types of audio/video features are currently primed for release and will bring life to the otherwise stale screens that are the hallmark of the first generation of eReaders and tablets.

But multimedia is only one component of the future of the eBook as a recreational or educational device. In-app purchases have provided software designers with a wealth of revenue. By hooking the customer with a free or cheap app, they use in-app purchases to drive revenue meaning that they can lower the initial cost of the book while ensuring

a continued stream from the consumer even after they purchase. eBooks will start going the same direction. Using the metadata that is part of every transaction, publishers will be able to interact with their customers and extract new streams of revenue even after they have purchased their eBook. Another example in the field of academia can be if a student is having a difficult time understanding a formula for statistics, they can upgrade their eBook experience through an in-app purchase that focuses specifically on that problem and gives them more context and understanding.

The last area that will be important to integrate for an enhanced eBook experience will be the social media aspect. No discussion on the digital revolution would be complete without it. Integration of virtual book clubs for book discussions will become the norm. Communities will be built around these types of interactions because it will give publishers insight into the tastes of its customers. This will also help fuel algorithms that will start to give more precise purchasing suggestions and recommendations of communities of like minded readers. The integration of this last component will evolve the traditional eBook from just another work by an author to an immersive multimedia, social experience and learning solution.

No discussion about the future of publishing can be concluded without at least a brief mention about the growing adoption of self-publishing as one of the newest forms of eBooks and an existential threat to the dominance of publishing companies. This form of independence and disaggregation has entered the mainstream and has given rise to some brilliant authors. Very few of them would have gotten a chance in the old distribution networks of brick and mortar stores. But the low cost of entry has given many of these authors the platform that, through eBooks, has exposed their work to the world. The most famous author to do this so far has been Stephen King. His decision to use his website as a way of providing installments to his readers revolutionized the publishing industry and legitimized eBooks from its previously stigmatized status. The self-publishing revolution will only continue to grow and has been adopted by writers from many developing and emerging countries as a means to share their work with a broader audience.

The growth of eBook sales will inevitably usher in a new period of competition amongst new and old entities alike. With a shift of focus and resources to cornering the eBook market, there will be a drastic decline in the availability of printed books only increasing the competition in the infinite space of the Internet. While many retail outlets may go out of business and the local bookshop may become a thing of the past, those same forces will introduce an amazing array of books through the Internet and at the touch of a button. Educational text books will become more affordable and significantly more useful as a learning tool. With all these changes, our leisure, academic and professional reading habits will only be improved.

2. Libraries

We have explored the potential business impacts of eBooks on traditional book retailers and publishers. The question of survival versus obsolescence is even more important

for the libraries that served as centers of knowledge for centuries. There are at least five main challenges facing libraries in the new era of eBooks:

1. Libraries have always been traditionally focused on serving a local community and population. eBooks have disaggregated this concept and made the Internet the world's virtual library.
2. It takes more effort to go to a library, research a book and check it out than simply getting it online. This includes the time to go to the library, effort to locate the text, a willingness to wait for a copy to become available if it has been checked out by other patrons, amongst others. eBooks remove those hurdles entirely and while there is a cost, increasingly consumers are paying small fees for conveniences that could pose a challenge to the very existence of the library as a resource.
3. Physical books can degrade and wear down over time whereas eBooks never will. Libraries are forced to reorder titles on an ongoing basis and publishers would lose revenue if libraries had a access to a perpetual use digital version of that book.
4. Shelf space will become obsolete since advanced research tools, primarily facilitated by computers, minimizes the browsing that a library patron must do.
5. The operational model for physical books is well known and has been refined over time. With eBooks, this process is, as yet, still undefined. As a result, very few publishers remain unwilling to actively invest in pilot tests to work with libraries to adapt to the digital age.

The pricing that publishers charge has become arbitrary and often onerous for libraries seeking to expand their eBook collection. To varying degrees, eBooks have almost become prohibitive because of restrictions such as maximum number of checkouts by library patrons or extremely high pricing for digital copies. This is all an effort by publishers to ensure that they do not lose money on the new perpetual digital medium.

The procurement choices that face libraries become yet another challenge when a publisher refuses to work with a library. With physical books, the library could simply order that book from a traditional shop and begin circulating it. With eBooks, there is no longer a way to acquire that book into the collection.

As a result, libraries will need to reinvent themselves to stay relevant in the digital age with or without the direct cooperation of publishers. As the physical collections of libraries shrink, libraries can use that as an opportunity to enjoy greater flexibility in the use of their space. This will shift libraries from product-based services to experience-based. The information-seeking can remain as one of the components of the evolution of the library as a center of culture and knowledge. The rest of the space can be used to serve a variety of different functions. This flexibility will meet the needs of the new generation of digital citizens who will interact with a multitude of technologies with the added benefit of enjoying some of the more traditional library resources.

Public libraries in particular can become the knowledge outposts that are adaptable to the communities they serve, providing the product-based experience and enhancing it by constantly reinventing and transforming the spaces for cultural programs such as

theater, debates, musical performances, art installations, and a center for community engagement. If books form a large basis of tangible culture, then the evolution of the library will continue to make it a focal point while drawing in all other elements of both tangible and intangible sources of knowledge and thought. Only through this concerted effort will we see the role of the library stay relevant in the years to come.

Conclusion

The transformative forces of globalization and content digitization have made the concept of an eBook an inevitability as the last piece of the digital content portfolio offering. It has introduced new actors into the marketplace and displaced major companies in the process. But as with any nascent industry, disproportionate growth and a lack of a standardized framework has made the eBook revolution progress muted at best: Publishing companies have remained resistant and cautious in the face of the change and this has put them in a reactive position in the face of the changing nature of the industry; libraries have failed to reinvent themselves or functionally partner with the publishing companies that supply their main commodity; academia has taken some steps towards incorporating eBooks into their curriculums but uneven pricing has made this a challenge; and a lack of DRM standardization has made the investment climate for all stakeholders somewhat murky.

In contrast to the challenges faced by the industry, progress seems to be taking hold from a governmental and national level. Indigenous industries are seeing significant levels of support, particularly in emerging economies which is contributing to the contours of a scalable and potential successful incorporation of eBooks into the new economy and its digital citizens.

But as we have seen, the demise of the physical book is still far from inevitable. There are numerous hurdles to the wildly optimistic projections that eBooks will take over 50% of readership in the next ten years. If anything, eBooks will represent a completely different form of “entertainment” than what many readers who still gravitate to physical books will seek.

The future of reading, in whatever form it takes, will be a slow and deliberate process that will take time to understand and shape. Powerful interest groups will compete with innovators and entrepreneurs who will continue to use technology to democratize access to industries that were once reserved for a few powerful companies through the innovative and growing medium of self-publishing. While the music and film industries that preceded the publishing industries digitization found success, it is still a work in progress and though these technologies have displaced the mediums that preceded it, books enjoy a uniquely longer life-cycle compared with the compact disc or DVD. Physical books have been around for centuries and, though innovative, eBooks will have a long journey to fully displace them as a medium.

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