The Impact of Digitization on Business Models in Copyright-Driven Industries: A Review of the Economic Issues

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I. INTRODUCTION

Copyright is a form of intellectual property right that protects an author’s manifestation of an original work. According to the U.S. Copyright Office, “Copyright protects ‘original works of authorship’ that are fixed in a tangible form of expression.”\(^1\) These manifestations ultimately impact all aspects of the economy. Nevertheless, the majority of copyrighted material is produced in a handful of industries—art, music, film, books, publications, software, architecture plans, etc.

Simply put, the purpose of copyright is to create a legal mechanism that allows the producers of creative works to collect revenues from those who enjoy the benefits of creative production (usually consumers). Absent the legal protections of copyright, the economic flows from consumers to producers of copyrighted works would be much lower or non-existent. In practice, particularly when copyrighted material is mass marketed and distributed, an intermediary may stand between the creative producer and consumer of the copyrighted work to facilitate the collection of revenues and payments to the creative producer.

The duration of copyright protection, originally 14 years, has been extended over time, with at least some studies finding a positive impact on the amount of copyrighted materials produced.\(^2\) Policy choices with respect to the duration of copyright protection reflect a trade-off between the competing goals of creating incentives for production of creative works and ensuring the public’s ability to enjoy those works.

For most goods and services, no special rights are needed to assure that producers are able to reap the benefits of their production—i.e., the profits that provide them with

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\(^1\) Copyright Basics, pp. 3-4 continues: “Copyrightable works include the following categories: 1 literary works, 2 musical works, including any accompanying words, 3 dramatic works, including any accompanying music, 4 pantomimes and choreographic works, 5 pictorial, graphic, and sculptural works, 6 motion pictures and other audiovisual works, 7 sound recordings, 8 architectural works.” These categories should be viewed broadly. For example, computer programs and most “compilations” may be registered as “literary works”; maps and architectural plans may be registered as “pictorial, graphic, and sculptural works.”

\(^2\) Katherine Hill, “Copyright as an Incentive for Musical Creation: An Examination of the Effects of Copyright Law Changes on Registrations, 1978-2006” (March 16, 2009).
incentives to produce. Goods subject to copyright protection, however, tend to suffer from two types of market failure. First, one user’s enjoyment of the good does not use up or consume the good nor does it diminish anyone else’s ability to enjoy the good.\(^3\) Second, the incremental cost of producing additional units of copyrighted material is low relative to the cost of creating the first version. When goods suffer from these types of market failures, they tend to be under-produced from a social perspective. Producers cannot fully realize (be reimbursed for) the value consumers have for their work and, consequently, they tend to under produce. Establishing legal rights to the intellectual content of these works—copyright—is an attempt to overcome the market failures associated with such goods. Copyrights clarify the ownership of these intellectual works in order to ensure that the creators can be reimbursed for their initial investment.

Music, for example, has many characteristics of a public good and suffers from the problem that once created, it is non-excludable—one individual listening to a song does not “consume” the music in a way that prevents others from also listening to (consuming) the music. Furthermore, music is generally considered beneficial for society\(^4\) and it is possible that, absent legal protections for the creators of music, there would be less music available to society than would be desirable. The commercial music industry would likely be unrecognizable without copyrights. Prior to the invention of musical recordings, sheet music was the physical medium of a music product. Because it was relatively inexpensive to copy sheet music, copyright afforded authors of musical works a legal right to control the production and distribution of their compositions. The same principle was carried into the world of sound recordings. Recording artists have a legal right to control the production and distribution of their audio recordings.

This paper focuses on three copyright-driven industries—music, film and book publishing—and explains how digitization, the Internet and related devices have fundamentally altered the competitive landscape for industry participants. In each of

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\(^3\) In the jargon of the economics profession, consumption of the copyrighted good is said to be non-excludable and inexhaustible.

\(^4\) The issue of “bad” music is set aside—so long as you are not forced to consume music, the existence of music you do not like should not cause you any disutility.
these industries, vertically integrated intermediaries—whether film studios, record companies, or book publishers—played a central role in the traditional supply chain. With the advent of digitization and the Internet, however, the distribution stage in each industry’s supply chain changed dramatically. As a result of digitization, distribution costs declined precipitously and the threat of piracy increased enormously. These radical changes and other closely related ones have forced industry participants to reconsider their business models. In particular, new distribution entities have emerged, traditional vertically integrated intermediaries have suffered, and creative producers of copyrighted works have entered a brave new world in which at least some may benefit from closer connections to ultimate customers.

Of course, many industries that rely on copyrighted material have not experienced the same changes as the music, film and book publishing industries. For example, the fundamental business models of some industries based on copyrighted materials—such as boat hulls, architectural design, and various other specialized engineering products—are virtually unaffected by the Internet and digitization because they are customized and often difficult to distribute over the Internet. Likewise, industries in which copyright plays a small role or no role at all have struggled to adjust their business model with the rise of the Internet. For example, many bricks and mortar retail stores have struggled to respond to the rise of online retailers.

The paper proceeds as follows. Sections II, III, and IV consider the impact of digitization on the music, film, and book publishing industries, respectively. Within each section, the

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5 A 2011 report estimated that 23.76% of Internet bandwidth was being used for copyright infringing traffic including movies, tv, music, and software (report excludes pornography). In the U.S., 17.53% of traffic was copyright infringing. Further analysis showed that Bittorrent is the most common P2P protocol, and of the 10,000 most popular pieces 63.7% was infringing content, with 35.2% of that 10,000 being film. See pp. 2-4 & 10 of “Technical report: An Estimate of Infringing Use of the Internet,” Envisional, January 2011. However, it is important to note that this is still a relatively small segment of the population which receives its content illegally. A 2010 study indicated that the rate of users who pirate content on P2P networks in the US dropped to 9% from 16% in 2007. See “With Fall of LimeWire, U.S. P2P Piracy Rates Plunge,” available at: http://www.dailytech.com/With+Fall+of+LimeWire+US+P2P+Piracy+Rates+Plunge/article21214.htm.
paper first describes the industry’s traditional supply chain. Second, it addresses the impact of digitization on this traditional supply chain, focusing on profound changes in methods of distributing copyrighted material to customers. Third, it considers the new business models emerging from the internet and technological innovations, and the extent to which these models rely on enhanced legal and technological impediments to piracy. Fourth, it discusses how digitization is affecting the traditional intermediaries (i.e., the record labels, movie studios, and publishing houses). Fifth, it assesses the impact of digitization on the producers of copyrighted works, as distinct from the traditional intermediaries that have dominated each industry. Section V, our conclusion, presents research questions that might be pursued to obtain a better understanding of how these different industries will evolve over time.

II. MUSIC INDUSTRY

A. TRADITIONAL SUPPLY CHAIN

The traditional music industry supply chain prior to digitization and the internet was largely controlled by the major record companies, of which there are currently four: Universal Music Group, Sony Music Entertainment, Warner Music Group, and EMI.6 These companies played the role of talent scouts, record producers, and music promoters and distributors.

The record companies were able to play the role of talent scout because they had the scale necessary to support the costly effort of dispatching scouts to live venues across the country. Until very recently, it was not easy for individuals interested in music to identify interesting artists on their own.

Once artists were signed to recording contracts, the record companies would help them produce albums by identifying and licensing songs to record and paying all recording costs, including fees for studio time, backup musicians, post-production mixing facilities, and distributors.

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6 BMG was considered the fifth major record company in the “big five”, but in 2004 merged with Sony to form SonyBMG Music Entertainment. The structure of the merged company changed in 2008 when Sony Music Entertainment took full control of BMG.
and producers. Record companies were needed to defray production costs because high quality multi-track recording equipment was beyond the reach of most artists until relatively recently.

Once the music was produced and organized into an album, including single song albums or ‘singles,’ the record company physically produced the music product. The traditional physical music products were vinyl records, cassette tapes, and CDs (now the most popular physical medium for music products). The physical music product was then distributed through retail distribution channels including record stores, other retail establishments, and, more recently, internet retailers such as Amazon. The record companies also had a primary role in promoting the album, producing music videos, and marketing the album to radio stations in order to secure valuable airplay.

**B. THE IMPACT OF DIGITIZATION**

Digitization and internet distribution have profoundly changed the underlying economic relationships in the music industry. Each of the three main functions of record companies—finding talent, recording music, and promoting/distributing songs—has been affected by the new technology:

- **Finding talent.** With the advent of internet distribution of digital music files, combined with low production costs (see next item), it is now substantially easier and less costly to seek out new talent. Although record companies still create value by scouting new talent and collecting a talented group of artists, they are not the only entities to do so. Many crowd-sourced curating sites exist, including FreshScouts and RecordScout. Even top pop artists have been discovered through MySpace.

- **Recording music.** The price of high quality digital recording and mixing equipment has come down dramatically in recent years. This is largely an expression of Moore’s Law. Once music is in a digital format, computer processing drives the cost of music. As computer processing power has dropped

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in price, so has the price of creating high quality recordings and performing post-production editing of music.

- Promotion, physical production, and distribution. Digitization has made physical production and distribution dramatically cheaper than they used to be, and the result is that music companies are no longer in complete control of music distribution. The record companies retain a significant role in promoting and marketing music, although the rise of the internet has enabled other entities to contribute to marketing and promotion as well.

The changing economics of finding talent and recording music can be expected to have an important impact on the music industry. If the reduced talent search and recording costs where the only changes in the industry, there would likely be more independent or smaller labels emerging. Lower talent search and production costs would imply lower barriers to entry for record labels, which would likely lead to greater entry. With more record labels, artists would have more opportunity to find a label and negotiate contract terms.

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10 Even prior to internet distribution of digital music files, the traditional record industry had been profoundly impacted by online sales of physical CDs, which eventually resulted in the demise of a large number of traditional brick-and-mortar record stores.

C. RESEARCH QUESTION 1: WHAT ARE THE NEW BUSINESS MODELS FOR MUSIC DISTRIBUTION?

Digitization has revolutionized the traditional music industry distribution network in at least three important ways. First, the ability to distribute digital music files over the internet has significantly reduced the enormous costs associated with the traditional business of manufacturing and distributing physical CDs.10 Second, the wide availability of illegal “free” music on the internet has forced music sellers to develop a model that makes it more attractive for at least some consumers to listen to legally copyrighted
music recordings rather than to pirated substitutes. Third, the ability to download individual songs has greatly diminished the importance of the traditional, lucrative industry product, the full-length album.\textsuperscript{11}

Below, we summarize some of the new models that go beyond the traditional distribution of physical media that are being used to sell music in the face of these constraints. The business models below vary according to how closely payment is tied to distribution.\textsuperscript{12} Music stores and even subscription models require strong legal enforcement and/or technological protection measures in the form of digital rights management (DRM).\textsuperscript{13} In contrast, models of associated sales see the music more as a loss leader to generate revenue in other ways. Further, the relative success of some of these models—particularly the advertising and subscription models and, to some extent, the digital music store—will likely be related to the availability of various technologies and devices make these services more user-friendly and convenient for the consumer.

\textbf{a) Digital Music Store (DMS)}

In this model, musicians and record companies allow internet music stores like Amazon.com and iTunes to sell their works at online outlets. Customers search for music at the internet storefronts and directly download their products to their computers or other Internet connected devices. The same ease and economy of distributing digital files online that enables these stores to work, however, is also a challenge for the DMS model. Peer-to-peer networks and other sources of illegal and unauthorized versions of the same music are a substantial concern to the industry. DMSs must find ways to convince customers to purchase music that they might otherwise obtain for little or nothing. DMSs, along with other music industry groups interested in curbing piracy, can do so either by ensuring that their storefronts add value to consumers’ experience of purchasing music or by increasing the costs of downloading pirated material. For example, to add value

\textsuperscript{11} Anita Elberse, “Bye-Bye Bundles: The Unbundling of Music in Digital Channels,” \textit{The Journal of Marketing} (May 2010). As discussed by Elberse, the effect of the decline of the album likely varies depending on other quality measures of music sold.


\textsuperscript{13} DRM employs a technological fix to prevent or complicate unauthorized copying.
DMSs often take on marketing and promotion functions, advising consumers about new artists or popular songs. Stores work to ensure that they offer user-friendly and reliable music downloads. The music industry also has a variety of options for discouraging piracy, discussed further below.

**b) Advertising model**

One new model that has emerged replaces sales of music with free online distribution funded by advertising. For instance, on Pandora, customers specify what artists they would like to listen to and this music is then streamed to listeners over the Internet. The advertising model may also be used for targeted marketing of new music. Music services can use a listener’s specified music preferences to incorporate new, similar music into customer “playlists” at low cost. By introducing new music to consumers who are most likely to be interested in it, this model may also lower promotion and marketing costs. One downside to such service is that it requires Internet access for listening. The success of this model, therefore, may depend on the increasing availability of mobile wireless broadband devices, such as smartphones and Apple’s iTouch.

**c) Music Subscription Service**

The music subscription service model is similar to the advertising model, but revenues are based on customer subscription fees. In this model, consumers pay for subscriptions to access libraries of music.\(^\text{14}\) Depending on the service, customers can either stream music from the Internet directly, or download music for some specified period of time. These sites often employ DRM to ensure that after a specified number of listens or amount of time, the music file expires. One benefit of a subscription-based service is that it enables members to search for new music they would not otherwise have access to. This provides a new channel for marketing new music and allows interested individuals to internalize the talent search, all at very low cost. In order to be successful, however, subscription services must have substantial music libraries or cater to a specific genre of

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music. Record label subscription services with libraries limited to a specific label, such as PressPlay and MusicNet, have been unsuccessful. Similar to the advertising model, subscription services benefit from the rise of mobile wireless technologies.

\textit{d) Bundling with other private goods}

This business model would seek to tie the digital music product to some other good or service that is not subject to economics of digitization and internet distribution. Value added liner notes, apparel, and lotteries for concert tickets have all been considered as possible tied goods. One downside to this model is that it may have limited appeal for the casual fan, who is not interested in additional paraphernalia related to an artist.

\textit{e) Leveraging associated goods}

In this model, value is derived from music through the associated goods that are sold as a result of the popularity of the music. Most prominently, this would be concert tickets, but could also include apparel and other ‘branded’ goods. To the extent file-sharing creates demand for music that is then purchased legally, this business model uses legal copies of music as the associated good. Employing such a business model requires the cooperation of other intermediaries traditionally involved in these associated goods, including music venues and other third party vendors.

\textit{f) Compulsory license}

In this model, widespread personal copying is accepted as inevitable and a levy or compulsory license, possibly on equipment and devices used to copy and play music or on internet connections, is used to compensate creators of music. This business model

\footnotesize\textsuperscript{15} Note that a smaller subscription service may be able to survive if it has sufficient subscription services in a particular music category. For instance, ClassicalArchives is a subscription service exclusively for classical music.


seems to have more traction internationally. As with other compulsory licensing regimes, the royalties collected could be distributed on the basis of relative volume of copyrighted works. Such a model, however, would likely require the cooperation and support from the manufacturers and distributors of such equipment and devices. Further, by levying a fee on devices, consumers would be charged more equally, and less based on the level of music consumption.

g) Voluntary contributions

Finally, artists may choose to rely on voluntary contributions from people who download their music. This approach was famously—and successfully—tried by Radiohead in 2007.

D. Research Question 2: How Will Changes in the Costs of Music Distribution Impact Record Companies

The steep decline in the cost of distributing music has allowed an extensive pirated music industry to flourish over the past several decades. Record company sales have declined in the recent past, but there is some controversy over the reason for these declines. It seems that unauthorized copying has had an impact, but so has the changed distribution model. Some researchers find sales declines caused by changes in the industry other

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22 Byungwan Koh, B.P.S. Murthi, and Srinivasan Raghunathan, “Shift in Demand for Music: Causal Effect of Online Music Piracy and Digital Music on Album Sales” (November 2010). “Out results show that the availability of iTunes like legal channels for digital music has blunted the effect of online music piracy on physical album sales, and in the presence of those legal channels for digital music, digital music, not online music piracy, substitutes for physical album sales.”
than piracy.\textsuperscript{23} Other researchers see a clear link between file-sharing and industry revenue decline.\textsuperscript{24} Still others see piracy leading to both a decline in industry revenue and an offsetting improvement in consumer welfare on the order of 2-to-1.\textsuperscript{25} Finally, others find a positive relationship between illegal and legal music downloads.\textsuperscript{26}

The degree to which the record companies, and music industry more broadly, can respond to these threats depends on the extent to which the industry is able to profitably preserve the traditional copyrights structure. This is a two-fold challenge. Record labels must develop a model that simultaneously ensures consumers choose to listen to legally copyrighted music recordings over pirated substitutes, and generates revenue to cover costs and reimburse artists. The preservation of those legal rights depends on how effectively the industry can counter the production and distribution of unauthorized copies of music—particularly in the form of digital files—and provide valuable legal content to consumers.

To preserve as much of the traditional industry model as possible, including the revenues associated with copyright, the record labels have relied heavily on both legal enforcement and Digital Rights Management (DRM).

There are a handful of potential methods for increasing the enforcement of legal copyright. Legal rights can be enforced against consumers through lawsuits to curb unauthorized copying and recover related economic damages. For instance, since the rise

\textsuperscript{23} Felix Oberholzer and Koleman Strumpf, “The Effect of File Sharing on Record Sales An Empirical Analysis” (March 2004). “Downloads have an effect on sales which is statistically indistinguishable from zero, despite rather precise estimates.”

\textsuperscript{24} Stan Liebowitz, “File-Sharing: Creative Destruction or Just Plain Destructors?" (February 2006). “Explanations, other than file-sharing, for the recent decline in record sales seem to have little or no support.” Alejandro Zentner, “File Sharing and International Sales of Copyrighted Music: An Empirical Analysis with a Panel of Countries,” Topics in Economic Analysis (2005).

\textsuperscript{25} Rafael Rob and Joel Waldfogel, “Piracy on the High C’s: Music Downloading, Sales Displacement, and Social Welfare in a Sample of College Students” (September 30, 2004). “Our valuation data allow us to measure the effects of downloading on welfare as well as expenditure in a subsample of Penn undergraduates, and we find that downloading reduces their per capita expenditure (on hit albums released 1999-2003) from $126 to $100 but raised per capita consumer welfare by $70.”

of Napster, the record industry has repeatedly sued various peer-to-peer (P2P) file sharing websites in order to shut them down. The Recording Industry Association of America (RIAA) also sued or threatened to sue 30,000 individuals for copyright infringement between 2003 and 2008. Moreover, the RIAA has also tried to encourage ISPs to enforce copyright protections by cutting off internet access for consumers who pirate music. At least four countries, including France, Britain, South Korea, and Taiwan, have passed laws to terminate service to customers who pirate. In order to be effective, legal enforcement does not have to eliminate piracy altogether, but only make pirated content unappealing to enough consumers who are otherwise willing to pay for it.

DRM, on the other hand, employs a technological fix to prevent or complicate unauthorized copying. Such an approach adds costs to the supply chain by requiring software and possibly hardware that can manage the DRMs. Notably, some of these costs might be borne by non music industry players, such as the broader IT industry. DRMs do not prevent piracy entirely, but rather increase the costs associated with pirating and, thereby, diminish the value of pirated material to consumers. Because there is no algorithm that cannot be “cracked,” DRMs must be continually adapted. Furthermore, consumers dislike their restrictiveness.27

Even if the record labels and music industry successfully enforce copyright protections, it is unclear how the relationship between the traditional record labels and the firms introducing new music business models will evolve. Even assuming aggressive legal enforcement and DRMs, the record industry appears to have lost control of the distribution business to industry outsiders such as iTunes. Thus, the key question for the record industry is whether it can return to profitability after having lost much of its traditional distribution function. As the number of players in the music distribution business increases, will the record industry in its content-provider roles be able to stay dominant in the entire music supply chain? Or, alternatively, are the revenues available

through music alone insufficient to support the record companies’ non-distribution functions? This is one of the most significant research questions for the traditional music industry.

E. RESEARCH QUESTION 3: HOW WILL CHANGES IMPACT ARTISTS IN THE MUSIC INDUSTRY?

In order to address how changes in distribution will impact the artists in the music industry, it is useful to briefly consider the types of copyright that are associated with recorded music, as well as current practices with respect to assignment of those copyrights to various intermediaries. Each piece of recorded music is associated with two copyrights: (i) the copyright in the sound recording and (ii) the copyright in the musical composition (song.) The copyright in the sound recording vests initially in the recording artist but typically is later assigned to the record company. In return for assigning this right, the performer earns royalties on the sales of his music only after the record company fully recoups the cost of recording, manufacturing, marketing, and distributing the album.

The copyright in the song vests initially in the original composer but typically is later assigned to a music publishing company via contract. Under this contract, one of the primary responsibilities of the music publisher is to market the song to performers and record companies in order to create a commercial recording. The primary value of the commercial recording to the composer (and his publisher) is in the licensing fees that are paid for over-the-air broadcasts of commercial recordings on television and the internet, but not broadcast radio, as well as public spaces such as a restaurants and stores. For

28 Fisher, Promises to Keep.
29 As discussed by Fisher, if the publisher fails to obtain a commercial recording within a year, the composer’s contract may allow him to “recapture” the copyright.
30 Although the record company must purchase a license to the song from the music publisher, the fees associated with this so-called “mechanical license” are relatively low; only 8 cents for each copy sold.
each of these public performances of the composition, the composer receives a fee (as does his publisher).31

Given this set of arrangements, it is unclear whether composers and performers of music would fare better or worse under the various business models that have emerged or will emerge in the music industry. As noted above, the lion’s share of composers’ earnings is accounted for by public broadcasts of their songs and this source of revenues that may be relatively unaffected by changing business models with respect to distribution. Similarly, performers make significant income not from incremental sales of their music but from concerts.32 For many musicians, the album acts as a way to market their music in order to generate concert sales.33

It is also important to recognize that any changes in business models will likely affect artists unevenly. The current superstars tend to do well under the traditional music supply chain model, while a much longer tail of non-stars does less well. A model of distribution using compulsory licenses might change this relationship. One analysis suggests that, in essence, less revenue captured by intermediaries will lead to fewer promotional activities by record companies, which in turn will lead to an erosion of the power of superstars.34 With stars’ power on the wane, a larger and more diverse set of artists may benefit. At least some analysts believe that the balance will favor the artists (and consumers).35

31 These fees are tracked and collected by one of the three performing rights organizations (PROs)—i.e., ASCAP, BMI and SESAC—that were created to facilitate transactions between the many thousands of individual composers and the large number of venues in which public performance may take place.


33 Performing artists, as distinct from composers, also earn royalties from public performances of their sound recordings. However, the number of venues in which performing artists have these rights is more limited. For example, a performing artist receives no royalty when his music is played on the radio but he does receive such a royalty when it is broadcasted over internet radio stations.


35 Graham, Burnes, Lewis and Langer (2004). The article concludes by arguing that while the future may look bleak for the major record labels, it looks much more positive for artists and consumers (pp. 101-102).
III. FILM INDUSTRY

A. TRADITIONAL SUPPLY-CHAIN

The motion picture industry can be divided into four stages: (i) production/financing; (ii) distribution/marketing; (iii) exhibition in movie theaters; and (iv) post-theatrical release. Different entities and individuals participate in each of these four stages. For example, in the United States, the big six studios are vertically integrated into almost every stage of the supply chain.\(^{36}\) Outside the United States, the studio system is augmented by public financing of movie production. At the same time, there are a large number of independent entities, including independent producers and independent distributors, which compete in only a single stage of the chain. Below, we describe each stage of the traditional movie industry supply chain in greater detail.

i. Production/Financing

The production of a feature film often begins with the acquisition of a draft screenplay by an independent production company or a group of people hired by one of the major studios.\(^{37}\) In developing the film based on that screenplay, these producers must coordinate the activities of actors, writers, directors, and other contributors. In some countries, all of those contributors will have a share in the copyright granted for the completed film. In the U.S., however, the producer typically acquires broad rights from all of the film’s contributors and is the sole owner of the copyright for the completed film.\(^{38}\) Because the development of a film is expensive, independent producers that are not already employed by a major studio will generally contract with a major studio to

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\(^{37}\) As discussed by Eliashberg, et al., producers that are affiliated with a studio often find it easier to obtain financing.

\(^{38}\) See Fisher (2004). As discussed by Fisher, individual contributors typically receive a fixed amount of money, agreed upon at the time of the contract, for participating in the venture and surrendering their copyright interests. A few crucial players such as the lead actors and perhaps the lead screenwriter may also obtain backend participation agreements which entitle them to a share of the net profits of the film.
obtain funds. The terms of such contracts usually require independent producers to cede creative control and provide the studio with an exclusive license to distribute the film.39

**ii. Distribution/Marketing**

Once the film has been completed, it must be distributed to consumers. The previously-mentioned big six studios dominate distribution and marketing for films that are intended to reach a nation-wide audience. Each studio has a wholly-owned distribution arm that distributes titles that it finances or co-finances, as well as titles produced and financed by independent production companies. According to Epstein (2009), these six studios dominate because the multiplex owners who book movies believe that only the big six can “open” a movie in 3,000 or more theaters on any given weekend, as well as create a national audience for that movie through their marketing muscle.40

At least up until 2008, there were also over a dozen so-called specialty distributors handling independent films, including both studio-owned “indie companies,” and truly independent companies.41 Recently, however, all of these indie companies have folded. As a result, it has become much more difficult for indie films to obtain distribution and will likely remain so until new models for indie film distribution become economically viable.42

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39 Alternatively, an independent producer may try to obtain financing from an independent financier, private equity investors, or an external funding body. However, as discussed in detail by Epstein, recent changes in the industry have made such financing more difficult to obtain. Indies must thus consider new and creative ways to get their pictures funded, as discussed in detail in Section E.

40 As discussed by Epstein (2009), the distribution fee varies according to the strength of the players, but is always based on a percentage of gross revenues. “Studios usually charge a 30 percent distribution fee on the movies they themselves finance. When it comes to films financed by other people’s money, the distribution fee is the subject of often contentious negotiations. Most outsiders seeking wide release pay about 18%. Since the actual cost of distributing a movie is about 8 percent (a figure which includes the incremental cost of PR specialists, media buyers, customs clearance and lawyers’ time) the studio makes as pure profit 10 percent of the gross revenues on a film that was financed entirely by another party.”

41 These studio-owned companies included Miramax, Fox Searchlight, Fox Atomic Films, Warner Independent Film, Picturehouse, New Line, Fine Line Features, and Sony Pictures Classics; Lionsgate Releasing, the Weinstein Company, and Summit Entertainment were actually independent of the studios.

42 As explained by Epstein (2009), independent distributors obtained a significant portion of their revenues from lucrative output contracts with HBO and other payTV channels. These channels, which paid for these contracts in order to attract customers with a wide range of movies, switched
iii. Exhibitors

Once distribution services are arranged, the film is sent to exhibitors—*i.e.*, the multiplex owners who show the film in their theaters. Film distributors typically charge exhibitors fees based on a percentage of box office revenue, as opposed to a flat fee. Negotiation between distributors and exhibitors in the U.S. (and many other countries) is on a detailed, film-by-film, theater-by-theater basis. In addition to specifying the division of fees between the distributor and the exhibitor, exhibition contracts typically stipulate weekly session requirements and a minimum number of weeks for which the film must screen.\(^{43}\)

iv. Post-Theatrical Release

Traditionally, after releasing the film in theaters in the U.S. and abroad, the studios sell retailers VHS cassettes and DVDs for resale or rental. They also license the film to Pay-Per-View channels (PPV), ”premium” cable channels and airlines, followed by cable and broadcast TV. Since the 1970s, the post-theatrical release segment has come to replace the traditional cinema as the economic heart of the film industry.\(^{44}\) By 2002, home video sales (VHS and DVD) accounted for 46% of film industry revenues, with approximately another 36% coming from after-market television and only the remaining 18% from theatrical exhibition.\(^{45}\) In fact, many movies do not turn a profit until they are released to the home entertainment market. It is estimated that studios keep close to 80% of revenues from DVD sales, with the remaining 20% being paid to the various artists and production unions.\(^{46}\) Part of the reason studios rely on the home theater market is that

\(^{43}\) See McKenzie (2009). Variations on the basic exhibition contract mean that the distributor’s share of box office revenues ranges from 55% to 90%.


\(^{46}\) *Ibid.*
luring a customer into a theater often costs the studios more than their share of box office revenues. 47

B. THE IMPACT OF DIGITIZATION

Thus far, digitization has had its greatest impact in the post-theatrical release segment of the industry, which has been dominated by physical DVDs for the past 8 to 10 years. 48 Online distribution of digitized movies has been possible since 1997. Nevertheless, revenues from online distribution have been relatively modest for the past five years due to both low sales volumes and relatively lower prices for online content. For example, in 2008 North American revenues from theatrical box-office distribution were $9.6 billion, and revenues from home video were $25.8 billion, while revenues from online distribution were only $227 million.49

Online distribution is becoming increasingly important to the industry at the same time that TVs are increasingly integrated with Internet connectivity. 50 For example, as of the end of 2010, Netflix alone had revenues of over $2.1 billion dollars51, and the majority of Netflix subscribers viewed more of their TV shows and movies via streaming than they did by DVD.52 Similarly, in January 2011, Hulu, a website discussed below, streamed an estimated 434 million minutes of video and generated almost 1.1 billion ad impressions.53

These sites, and the others that have been added since, allowed 171 million US internet

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47 As discussed by Epstein (2009), “in 2007, the six major studios spent on average $35.9 million on advertising and prints per movie, but got back $26.6 million per title. Thus, even if the studios had made the movies for free — which of course they didn’t (the average cost was $70.9 million) — they would have lost $9.3 million per film on the theatrical run.”

48 Digital technology is also having an important effect on film production because it eliminates the need for costly film and significantly reduces the cost of film editing and assembly (see Zhu 2001). Digitization can also reduce the cost of exhibiting movies in the theater but increases the pressures on movie theaters to differentiate the experience they provide from improved video-on-demand options.

49 Stuart Cunningham, Jon Silver and John McDonnell, “Rates of change: Online distribution as disruptive technology in the film industry,” Media International Australia, August 2010, p. 121.


52 Ibid., p. 1.

users to watch some form of video in January 2011, with an average of 14.5 hours per viewer.\textsuperscript{54} Although these numbers include all types of video content, it is clear that the online distribution of video content has become a major segment of the film distribution business. Meanwhile, Internet-enabled TVs, as well as set-top boxes and other TV peripheral devices with Internet connectivity, have been gaining popularity in 2010 and 2011.\textsuperscript{55}

C. RESEARCH QUESTION 1: WHAT ARE THE NEW BUSINESS MODELS FOR MOVIE DISTRIBUTION?

i. Online Subscription Rentals

The business of online subscription rentals for movies is currently dominated by one company: Netflix. Since its founding in 1997, Netflix has grown into one of Fortune Magazine’s “50 most admired companies”\textsuperscript{56} with over 20 million subscribers. Under its original business model, Netflix charged its customers a monthly flat fee for the right to view as many movies on DVD as desired, subject to the restriction that customers hold no more than an agreed-upon number of DVDs at any one time. Netflix delivered the customers’ selected DVDs through the mail, and the consumers mailed them back when finished, with no late charges. Today Netflix offers nine different physical DVD rental subscription options for U.S. customers, ranging from a one-DVD-per-month limit for $4.99/month to an eight-DVD-per-month limit for $55.99/month.\textsuperscript{57}

Netflix is also expanding into the content streaming business.\textsuperscript{58} First introduced in January 2007, Netflix’s streaming option allows consumers to watch television shows


\textsuperscript{55} In December 2010, Nielsen Co. announced that it would begin including homes with Internet enabled TVs in its rating samples. Nielsen’s press release stated “With the expected growth of Internet-enabled TVs, we believe the continued exclusion of this increasing number of homes would no longer enable us to fully represent consumers’ TV use.” See Joe Mandesse, “Tis the Season To Be… Golly, Nielsen Adds Web-Enabled Sets to TV Ratings,” Media Daily News (December 8, 2010) available at http://www.mediapost.com/publications/?fa=Articles.printFriendly&art_id=140867.

\textsuperscript{56} “Press Kit,” available at: http://www.netflix.com/MediaCenter?id=5379.

\textsuperscript{57} Ibid.

and movies on their computers and enabled TVs without any physical media. Consumers can purchase a subscription option that includes unlimited streaming of digital content for $4.99/month. This feature is already very popular. In the first two months of 2011, 61% of customers streamed or downloaded movies from Netflix. The next closest competitor was Comcast with only 8%.

For Netflix, the average licensing cost of streaming is substantially less than for DVD rentals. In 2010, Netflix had close to $1.3 billion in obligations for the long-term licensing of film and television content. One analyst estimates that by 2012 this number will top $1.9 billion as Netflix expands its digital content offerings. With the average Netflix consumer renting eight discs of material per month (including streaming content), and approximately 20 million subscribers, it is estimated that Netflix pays about $.68 per disk rented for its content. Netflix also pays for bandwidth to serve streaming customers and for postage to serve its traditional DVD rental market. As Netflix’s streaming business overtakes its traditional physical delivery business, its postal costs will decline. While its cost of providing the bandwidth for streaming content will rise, this increase will likely be offset by the falling price of bandwidth. For instance in 2009, Netflix paid an estimated 5 cents to stream a movie; in March 2011 it paid only 2.5 cents to stream a movie, a 50% decline in two years.

In fiscal year 2010, Netflix earned revenues of over $2.1 billion and had a total net income of approximately $160 million—a profit margin of over $4.50 per subscriber.

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60 Ibid.


63 Assumes 8 disks per month x 12 months per year x 20 million subscribers = 1.92 billion disks sent out. 1.3 billion/1.92 billion = $.68 per disk rented. See “Analyst: Netflix Content Costs to Top $1.9B by 2012,” available at: , for assumptions regarding disks per subscriber. Note that Netflix pays different licensing fees for new releases versus older films versus television shows, so its average cost per disk can only be viewed on aggregate.


With substantial profits, Netflix will likely inspire competitors. Currently, Netflix’s greatest competition is the growing number of online streaming-only models.66

ii. Online Video Store

The technology behind the online video store model is very similar to that utilized by Netflix in its streaming content option. A movie or set of movies is licensed from the major studios that hold the given copyright. It is then provided in a library for users to download on a permanent, semi-permanent, or streaming basis for a fee. While the permanent and semi-permanent downloads are akin to buying or renting a DVD, the streaming basis offers a less expensive mode of viewing.

The features of these three key online movie formats can be summarized as follows:

1. **Permanent Downloads**: In a permanent download the consumer downloads the entire file for unlimited viewing, regardless of an internet connection at the time of viewing. The ownership is equivalent to the consumer buying a DVD; in fact, depending on the decoding of the film, the consumer could actually burn the file to a DVD and watch it on a traditional DVD player. These files are typically the most expensive.

2. **Semi-Permanent Downloads**: For a semi-permanent download, the user downloads the entire file and can watch it over a given timeframe or for a certain number of viewings.67 The file is deactivated once the limit is reached. Again, the user does not have to be connected to the internet to watch the movie, as it is downloaded onto some form of physical media. These files are analogous to renting movies without a physical disk and are generally less expensive than permanent downloads.

66 For a discussion of Netflix in comparison to these new competitors see: “Hulu, Redbox and Amazon: Can They Topple Netflix?,” and “Does Netflix Really Have Any Competitors?,” available at: http://seekingalpha.com/article/246563-does-netflix-really-have-any-competitors.

67 Note that with increasingly sophisticated technology, the consumer can begin to watch a movie prior to the completion of the movie download. Earlier technologies required the user to download the complete movie before being able to watch any portion of it. Later technology allowed for sequential downloading, so that the consumer could begin watching the movie shortly after starting the download. This is somewhat of a hybrid between download and streaming content.
3. **Streaming**: Finally, the streaming option utilizes a technology similar to that employed by Netflix, in that the film is not permanently stored on the end-user’s physical media. Instead it exists only over the internet and the user must maintain an internet connection to watch the film. This form of digital media is generally the least expensive.

Since the early 2000s, several companies have opened online movie stores. The current leader is Apple’s iTunes. Initially launched to sell music, iTunes began selling digital videos in the fall of 2005, although its offerings were confined to music videos and a limited number of TV shows. By January 2008, iTunes made movies available for between $2.99-3.99, allowing users to download the movie, store it for 30 days, and have 24 hours to finish watching the movie once they started it. Furthermore, the consumer could start watching the film on a computer and finish watching it on another Apple device. Since then, Apple has come to dominate the online sale of movies and TV shows. In 2010 it accounted for 64.5% of all electronic sell-through and internet video-on-demand revenues.

Despite Apple’s success, however, other businesses are beginning to catch up. Microsoft increased its share of the VOD business from 11.6% in 2009 to 17.9% in 2010. Companies such as Sony, Amazon, and Wal-Mart are also making headway in this sphere and are expected to grow as consumers switch over from more traditional physical formats to digital downloads.

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68 Note that this ignores the fact it is stored briefly on the computer in short-term memory; the stored files cannot be accessed through normal use by the consumer and so can be effectively ignored.

69 One expert estimated that iTunes’ annual revenues were below $8.5 million, which was not even enough to cover the high-setup and operating costs of a centralized architecture. “iTunes Offers ‘Lost’ on Video iPod,” available at: http://www.techtree.com/techtree/jsp/article.jsp?article_id=68587&cat_id=615


Interestingly, several studio versions of the online movie store were unsuccessful, despite the fact that the studios’ control of film distribution licenses allowed them to deal more directly with consumers than their rivals.\(^74\) For example, Movielink, a 2001 joint venture among five of Hollywood’s major studios, began with $150 million in start-up capital\(^75\) failed miserably, and was sold in 2007 to Blockbuster for less than $20 million.\(^76\) Movielink’s failure may be partially attributed to high prices and the site’s consumer-unfriendly features. For example, as a result of the studios’ long-term contracts with PPV providers, Movielink did not offer movies any sooner than they could be obtained from alternative providers.\(^77\) Movielink’s timing may also have been an important factor. Today an increasing number of televisions are integrated with the internet through direct connections or video game consoles. Furthermore, it takes much less time to download a full-length movie today than it did in the early 2000s. Had this been the case five years ago, consumers might not have abandoned Movielink, which had a large film catalog and a jumpstart in the industry.\(^78\)

### iii. Advertising-Based Services

The advertising-based business model uses the same technology and method as the online video store but relies on ad revenues rather than a subscription or pay-per model view to sustain itself. In this model, videos are streamed rather than sold. Retailers sell ad space in the form of both banner ads on the site and commercials between video clips. Numerous entities have entered this arena and have been able to raise significant capital.


\(^78\) Ibid., pp. 453-454.
For instance, in 2008 eight companies—including Hulu, Veoh, Vuze, DailyMotion and Metacafe—raised over $350 million dollars in capital to support websites that aggregated video in the form of movies and TV shows and relied primarily on advertising revenue.79

Other sites that offer streamed video free of charge to consumers include YouTube, which has specialized in user-provided clips, and individual network websites such as ESPN.com and NBC.com. The sheer number of such sites may present a problem for long-term prospects for the advertising-based business model. Aggregating sites, like Hulu or Veoh, only generate ad revenue if they have a high volume of users. A large number of fragmented sites may make it hard for sites to build a base of viewers or differentiate themselves.80 On the other hand, when sites can more specifically target ads to a particular group of viewers, ad values and revenues might increase. In either case, there have been some notable success stories.

Perhaps the most successful ad-based site to date has been Hulu. Hulu allows consumers to rely on a single site to provide all of the content they seek, rather than requiring them to switch sites to view various networks’ shows. In commenting on this model, Hulu’s CEO stated that “(a)ggregation works for consumers, it makes it easier to find and discover and enjoy premium content, and it works for advertisers, because with that aggregation you get greater reach.”81 The example of Hulu provides insights into how the advertiser-supported business model is evolving over time.

Hulu was founded in March 2007 and initially generated all of its revenues from sales of ad space on its website, as well as ad clips inserted between its shows. Consumers could watch both recent TV shows and TV and movie classics. A 2010 article notes that Hulu

81 “Hulu, the online-video hub, contemplates its future,” available at: http://seattletimes.nwsource.com/html/business/technology/2011517934_bthulufuture05.html?syndication=rss
had over 200 content suppliers at the time, who received between 50-70% of the advertising revenue generated on the site. Further, in January of 2010, consumers streamed over 903 million videos from the site. However, Hulu has had disagreements with content providers over revenue sharing and licensing agreements.

Hulu has recently announced a premium subscription model called Hulu-Plus in addition to its ad-supported service. In the subscription model, consumers pay $9.99/month for access to a full season’s worth of a TV show as well as to past episodes. The decision to push for a subscription model as well as an ad-supported model was in part due to pressures from the content providers who were seeking greater revenues. Ad-revenues on Hulu are as much as 60% lower than they are for the same program on network television. Although online ad revenue is expected to increase in the future as more users turn to online-only viewers, for the time being it is not enough to satisfy the TV networks and film studios.

The subscription service is an example of the “Freemium” business model that is increasingly becoming popular in the emerging technology sphere. In this model, the company gives away a service free and acquires a large customer base through various means, including word of mouth, referrals, and marketing. The business then offers a premium service for a price. Aside from Hulu, notable examples of this model include Skype, Flickr, and Trillian. Recently YouTube implemented this model when it began offering movie rentals on a pay-per view basis. Hulu’s utilization of this model makes it a hybrid in that it is utilizing the ad sponsored video service as its main service, while

82 Ibid.
84 Stuart Cunningham, Jon Silver and John McDonnell, “Rates of change: Online distribution as disruptive technology in the film industry,” Media International Australia, August 2010, p. 122.
85 This model was first defined as “Freemium” in a blog run by venture capitalist Fred Wilson. He wrote about the model on his blog and it was tagged as “Freemium” in the comments section. For the original blog post and further discussion see: “My Favorite Business Model,” available at: http://avc.blogs.com/a_vc/2006/03/my_favorite_bus.html.
also allowing consumers to purchase a subscription similar for streaming content similar to that offered by Netflix. Hulu demonstrates the potential for success of ad-supported video providers and serves as a possible sign of what is to come in the online film distribution market. Consumers receive standard content free but may pay for premium content. Remarkably, this seems similar to the way TV has evolved; consumers can get broadcast television for free but must pay a premium for additional content.

iv. Evolution in Traditional Post-Theatrical Distribution Models

a) Kiosk Rental

One new business model that is based solely on physical DVDs is the kiosk rental model. A single kiosk may be located in a gas station, grocery store, or any major pedestrian area. This model still relies on the rental of DVDs and does not depend on the internet more than a standard video store would. Indeed, the underlying economics of this model are almost exactly the same as those of the video rental store, but the model is likely to be more convenient and cheaper for consumers than the old video rental model. The consumer selects a movie from the kiosk, rents it for a 24-hour period, and then returns the movie to any kiosk owned by the rental company. The kiosk companies are able to charge a significantly lower fee due to their low overhead, with overnight rentals costing only $1. Major companies in this sphere include Redbox, The New Release, DVDplay, and Blockbuster Express.

87 This means that the kiosk might still have an internet connection, but that it only uses this connection to process transactions and possibly to control inventory. It does not stream the content to the user or require the user to make purchases online through a mobile application or internet browser. Note that some recent innovations in this market do allow the consumer to check which titles are available at a given kiosk and to reserve titles ahead of time, see www.redbox.com.


89 “Redbox,” available at: http://en.wikipedia.org/wiki/Redbox. The growing popularity of this model sparked litigation when the movie studios, feeling that Redbox’s sales in particular were hurting their DVD sales, refused to sell their newest releases to Redbox. In response to Redbox’s successful legal action, Sony and Paramount negotiated new deals with Redbox in which the company agreed to destroy its DVDs after their rental term, rather than reselling them on the used DVD market.
b) **Cable/Satellite**

Cable and satellite television are another medium of home distribution that is evolving in the changing landscape of film distribution. These two media have long been the haven of the film industry, providing ample margins to studios while serving a wide range of customers. Likewise, these services have benefitted from the growing importance of premium content and programming provided by channels such as HBO and Starz, which generate original programming as well as offer new releases that consumers are willing to pay-for. However, these companies are also shifting online to retain customers who are increasingly tempted to cut their cables and solely rely on digital content through companies such as Netflix and Hulu. For instance, Comcast provides its subscribers with an option to stream certain channels to their home computers online, regardless of location. Additionally, cable and satellite providers are able to retain customers through their ability to cover live sports and events, something which streaming video providers have yet to provide. However, these companies will need to continue to adapt to the changing marketplace and to consumers needs in order to stay relevant as TVs, game consoles, and video devices become increasingly online-enabled.

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**D. RESEARCH QUESTION 2: HOW WILL CHANGES IN POST-THEATRICAL DISTRIBUTION AFFECT MOVIE STUDIOS?**

The new business models and post-theatrical distribution supply chain have placed enormous economic pressures on the studios as they struggle to make strong margins in an increasingly commoditized distribution market. Furthermore, the studios now must compete with pirated movies. To address how changes in post-theatrical distribution will affect movie studios, we will first look at the effects of piracy on the studios and then examine how the studios fit into the new paradigm of online video distribution.

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91 See details at http://xfinitytv.comcast.net/.
Prior to the development of digital technology, it was difficult to copy and mass produce films without serious losses in quality.\textsuperscript{92} Today, however, this is easy to accomplish. If a pirate distributor can gain access to a master copy of a film, that distributor can mass-produce copies with little loss of quality and sell them for slightly above cost of burning and packaging a DVD.\textsuperscript{93} Studios often complain that they are losing substantial profits due to piracy. For instance, in a 2005 report, the MPAA claimed that the movie industry lost $1.2 billion in the U.S. alone due to piracy.\textsuperscript{94} Another report cited by the MPAA puts world losses due to piracy at close to $6.1 billion.\textsuperscript{95} Of this $6.1 billion, it was claimed that $2.4 billion was lost to bootlegging (purchasing an illegally copied DVD), $1.4 billion was lost to illegal copying (copying someone else’s DVD), and $2.3 billion was lost to internet theft (illegal downloads through mostly P2P).\textsuperscript{96}

Despite these claims of large losses, the dollar effect that piracy has on the industry is unclear. As discussed in the context of music piracy, it is not appropriate to measure economic losses due to piracy at a one to one ratio; the sale of one pirated movie for a dollar does not necessarily imply that the industry lost $15 in sales. It is likely that the consumer purchasing the film for one dollar would not purchase the same film for $15. There exist certain substitution and elasticity effects that are difficult to quantify, and vary across countries.\textsuperscript{97} Further, piracy may bring economic benefits to intermediaries and creatives in certain circumstances. For example, studies have shown that for some

\textsuperscript{97} For a further discussion of this see “Media Piracy in Emerging Economies,” Ed. Joe Karganis, \textit{Social Science Research Council}, 2011, p. 16-18.
cases piracy can be useful in establishing a user base, speeding up diffusion, acting as a “free sample”, and reducing price competition.98

Beyond the effects of piracy, studios face increasing pressures to find an alternative to the new distribution supply chain of online video distribution. As discussed above, the business models of online distribution are increasingly removing the studio from the distribution sphere, relegating them to licensing and financing intermediaries. Furthermore, with the decline in the DVD sales that have been the “cash cow” for studios over the last 10 years, the major studios may be forced to change their business model.99 How the studios are to survive in this new paradigm is a question at the center of many executives’ and analysts’ minds.

One prominent executive noted that in current new business models the companies are “trading digital pennies for analog dollars.”100 Studios have tried to resist this notion by forcing companies to sell their downloaded content for prices similar to those of DVDs, despite the obviously lower cost of online versus physical production.101 The problem is two-fold for the studios. First, if they allow online stores to charge less for online-distributed movies, it will cannibalize their DVD sales further as consumers flock to the cheaper alternatives. Second, the big-box stores like Wal-Mart and Best-Buy will demand that they be able to purchase and sell the DVDs for lower prices to preserve their physical sales. In either case the margins on sales will be squeezed, leaving studios caught between an emerging technology on one hand and the large retail outlets on the other. Added to this issue, some companies are willing to operate at a loss on the sale of the movie to encourage consumers to either buy their product, in the case of Apple and

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100 “Was Jeff Zucker Really So Bad For NBC Universal?,” available at: http://paidcontent.org/article/419-was-jeff-zucker-really-so-bad-for-nbc-universal/.
the iPod, or shop in the store, in the case of Wal-Mart. This puts even further downward pressure on prices.

Although studios are generally facing an uphill battle, they are still profitable, major players in the industry. Films are still breaking box office records and DVD and Blu-Ray sales were close to $2.1 billion for the first three months of 2011. Furthermore, major studios still exert control over the financing and distribution of movies to the cinema market. However, it is clear that the traditional distribution channels have begun to change and studios must adapt to remain relevant players in the downstream market. More research is needed regarding how the studios will continue to evolve in this changing landscape, and how their recent licensing agreements with online distributors will play out in the future.

E. RESEARCH QUESTION 3: HOW WILL CHANGES BROUGHT BY DIGITIZATION IMPACT INDEPENDENT PRODUCERS?

With the advent of the new digital distribution channels and models for film, the independent artist has the opportunity for greater autonomy in the ability to distribute independent movies, albeit limited by the clout that major studios hold in the market. Prior to these changes artists had to rely on selling either their unfinished film, in the form of a screenplay, or finished film to a studio in order for the film to reach a wide audience. As previously discussed, this was because of the large upfront expense of first marketing and then distributing a film, both to the cinemas and via physical media. Only major studios generally had the capital to finance this venture as well as the contacts and technical expertise to properly market and distribute the film. Therefore, they had the power to dominate any negotiation with the filmmaker, which in return allowed them to control both the licensing terms and the curatorial terms of any agreement. Today with the advent of online distribution, the cost for both the marketing and distribution of a film


103 For a discussion of the history of how the film industry in relation to negotiations with filmmakers has changed see Jon M. Garon, Esq., “Content Control and the Socially Networked Film,” University of Louisville Brandeis School of Law – Second Annual Conference on Innovation and Communication Law, August 2009.
is significantly reduced. In return, the independent filmmakers who can finance the production of their own films no longer have to rely on selling it to a studio, allowing them to negotiate their own licensing terms with distributors and create their art free of any studio influence.

The first change in costs to independent filmmakers occurs because it is much cheaper to mass-produce an online digitally streamed movie than it is to produce a DVD. An online movie can reside on a server and does not have to be stamped, packaged, and shipped. Instead, a digital copy just has to be provided to the distributor, which can then host the film on its site. Furthermore, the filmmaker can sign agreements with multiple distributors that can all host the movie, allowing the filmmaker even greater access to the market.104 Although this prevents the filmmaker from showcasing the product in a cinema, if the movie achieves success through online distribution, independent cinemas might contact the filmmaker to license the film directly. One limitation to this model is that if the film is not shown in theatres first will not be considered for an Academy award.105 Given that many independent filmmakers desire the accolades of the Academy to further their careers, this could be a serious limitation. However, with the advent of social media and ad-supported sites there are still opportunities for filmmakers to get their movies in cinemas—and onto Oscar nomination—without relying on the major studios. 106

A filmmaker could also use the Internet to obtain financing for his film in increments. For example, he might first prepare a preview or short. If that initial effort is then able to

104 See discussion at Jon M. Garon, Esq., “Content Control and the Socially Networked Film,” University of Louisville Brandeis School of Law – Second Annual Conference on Innovation and Communication Law, August 2009, pp. 19-21.
106 One loophole in the Academy’s rules regarding films eligible for an Oscar is that ten minutes or 10% of the running time is allowed in a non-theatrical setting prior to the film’s release. This means filmmakers can post extended previews or shorts related to the film on video websites such as YouTube, or social media networks such as Facebook without compromising the film’s Oscar eligibility. “Academy of Motion Picture Arts and Sciences, 80th Academy Award Rules for Distinguished Achievements in 2009, Rule 2 (3.),” available at: http://www.oscars.org/awards/academyawards/rules/82aa_rules.pdf
garner enough attention through user’s reviews and word of mouth, the filmmaker might be able to gain additional financing for distribution from non-studio investors. This would then allow the film to make small runs in cinema art houses and retain its Oscar eligibility. This process of marketing through making a direct connection with the consumer is at the heart of several new internet-based business strategies and is an emerging option for filmmakers. However, this process only works if the film has already been made and is ready to be distributed. If the filmmaker does not even have the money to start the full production of the film, he or she still has options in the new paradigm of online distribution. The filmmaker can employ a similar strategy by showing short films, or discussing ideas on videos and then offering consumers a chance to either donate money to make the film or buy a credit in the film. Websites that offer this feature, such as buyacredit.com, have achieved mild success. This kind of option allows the filmmaker to appeal directly to the consumer, while avoiding the complications of finding pre-financing through hedge funds, securities markets, or the traditional big studios. Additionally, this process could allow fans of a genre of films to support aspiring independent artists that might not have had an opportunity to pursue their passion under the studio model.

Although the aforementioned models do allow greater autonomy to small independent filmmakers, the advent of online distribution has limited potential for filmmakers who want to make big-budget films. With a major film costing over $200 million on average, of which $39 million is spent just on marketing the film, it is hard to imagine that selling credits or garnering attention in social media sites will ever be able to cover the costs or inspire investors to back such a large undertaking. Instead, these films must rely on the traditional studio financing and supply chain for their distribution. Granted, social media creates increased opportunities to reduce marketing costs; the

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107 See discussion at Jon M. Garon, Esq., “Content Control and the Socially Networked Film,” University of Louisville Brandeis School of Law – Second Annual Conference on Innovation and Communication Law, August 2009, p. 19.
108 Ibid., pp. 31-32.
director and stars can give interviews on social media sites attracting the attention of fans, or post previews on ad-sponsored video sites. However, such marketing techniques cannot reduce costs enough to make putting out a major movie affordable for independents. In this sense the studios will still maintain some control over the licensing and artistic output of the movie industry for time being. However, as the industry changes, the relationship between filmmaker and studio will continue to evolve.

IV. BOOKS

A. TRADITIONAL SUPPLY-CHAIN

In the traditional book supply chain, authors first create their product, a book manuscript or proposal. Authors then seek a publisher willing to buy their product, sometimes by sending manuscripts to various publishing houses to pique their interest or by working with a book agent who looks for a publisher on behalf of the author. Typically publishers compensate authors on a royalty basis, with the publisher determining what percentage of the overall sales the author may receive. Royalties fall within the range of 7% to 15% of the list price set for the physical book. Good publishers find and groom writers, including those who do not show much initial commercial promise. Publishers give advances on royalties, which writers of nonfiction need in order to afford research for new books.

The publishing house covers the production costs of the book, which include the editing and reviewing of the manuscript and the marketing and promotion, printing, and distribution of the finalized book. A printer produces a number of copies of the book, perhaps storing the books until they are sold if an especially large print run is requested.

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113 Ibid., pp. 76.
Printed books are then sent through distributors and wholesalers to booksellers and retailers who sell the books to the end consumers.115

Traditionally, publishers have sold books to stores, setting the wholesale price for hard covers at 50 percent of the cover price.116 Profit margins for publishers are slim. For a hardcover book sold for $26, with 50% as the retailer’s margin and the remaining 50 percent covering the publisher’s costs: 15% for author royalties; 7% for the costs of paper, printing, and binding; 4% for marketing; 7% for distribution; and the remaining 18% to cover rent, editors, a sales force, and any write-offs of unearned author advances. Book vendors return 35% of the hardcovers they buy, costs publishers must write off.117 Often, the hardback version of a book comes out months before the paperback version, which is sold for much less. This model has persisted more or less unchanged for decades, but the arrival of e-books has introduced a new distribution method.118

B. THE IMPACT OF DIGITIZATION

In the digital era, the industry has an alternative step at the end of its traditional supply chain: digital conversion. Consumers can now access digital versions of books, or e-books, over the internet. Though the first versions of e-books evolved forty years ago, e-books gained a large stake in the mass market around 2007.119 At the end of 2010, e-book sales constituted about 10 percent of total sales, with the expectation that this figure

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117 Muravskiy breaks the costs up as 45 percent as the retailer’s margin, 5.5 percent as the publisher’s profit, and the remaining 49.5 percent covering the publisher’s costs: 12.5 percent for author royalties; 12 percent for shipping and printing costs; 5 percent for marketing costs; 10 percent to the wholesaler; and 10 percent for editing and reviewing manuscripts. See Muravskiy, Daniil, The Digital Book as a Disruptive Innovation, St.P. State University Graduate School of Management Master’s Thesis, 2010, pp. 71-73.
119 Muravskiy, Daniil, The Digital Book as a Disruptive Innovation, St.P. State University Graduate School of Management Master’s Thesis, 2010, pp. 71-73. Project Gutenberg was founded in 1971 and is a digital library with the full texts of public domain books that can be read by almost any computer in a variety of digital formats.
would rise to 25 percent in the next two to three years.\textsuperscript{120} Publishers expect that e-book sales will surpass traditional book sales by 2018.\textsuperscript{121} By 2015, sales of e-books are expected to reach $3 billion.\textsuperscript{122} The availability of e-books has affected how books are made available to consumers for purchase from vendors. E-books can be purchased online through traditional book vendors, like Amazon.com, Inc. ("Amazon") and Barnes & Noble, Inc. ("Barnes & Noble"), as well as through new industry participants, like Apple, Inc. ("Apple") with its iBooks and iBookstore applications.

In order to read an e-book, a consumer must have an Internet-connected e-reader. The e-reader may be a multi-purpose device—such as a computer, Smartphone, or tablet—or a device developed specifically for reading e-books. Not surprisingly, the market for e-books has led to the rise of a complementary market for e-readers, and marketing efforts to sell e-books are often closely tied to marketing efforts to sell the required e-reader. The above-mentioned vendors each offer their own e-reader: Amazon offers the Kindle, Barnes & Noble offers the Nook, and Apple offers the iPad, iPhone, and iPod Touch. There are other makers of e-readers in addition to these three big market players, the most notable of which is Sony. Sony beat the others to the e-reader market with its Librie tablet, launched in April 2004 and hailed as “the first successful attempt at a proper electronic book with a display that approximates the look of traditional paper.”\textsuperscript{123} Many e-readers such as the Kindle and Apple’s various devices are integrated with wireless Internet. Adding to its convenience, customers can download e-books and other content directly.

In general, the online purchase model removes the physical book from the supply chain. Consumers download e-books to e-book reader devices. Consumers pay a one-time purchase fee, as they do for physical books, and have the right to read the e-book as many

\textsuperscript{121} Loebbecke, Claudia, The Emergence of eBooks: Just Another Meida Industry Joining the Converging Digital World? An Explorative Study on User Preferences and Industry Structure Changes, University of Cologne, 2010, p. 5.
times as they would like. When a consumer purchases an e-book from Amazon, the purchase is sent automatically and wirelessly to the selected Kindle or Kindle app. Downloads made to Kindle for PC can be transferred to a Kindle later.\textsuperscript{124} As in a physical library, the number of e-books stored on an e-reader device is limited only by space; however, in this case, the limiting factor is memory rather than physical dimensions.

In contrast to the music and movie industries, traditional book retailers adapted to digitization by introducing e-reader devices that integrated DRM from the beginning. To prevent piracy in this business model, titles are encrypted such that they are useable only on the e-reader device to which they are initially downloaded. This security system means that consumers cannot share e-books unless they share the e-reader device to which the books have been saved.\textsuperscript{125}

C. \textbf{RESEARCH QUESTION 1: HOW WILL COMPETITION EVOLVE IN THE DISTRIBUTION AND SALE OF E-BOOKS?}

Digital book sales generate an operating margin at a percentage rate in the high-20s range, as compared to the mid-teens from book sales.\textsuperscript{126} In addition to profiting from e-book sales, distributors are also profiting from e-book reader devices. The most popular e-book and e-book reader vendors are: Amazon, the e-book reader Kindle, and Kindle applications; Barnes & Noble and the Nook; and Apple, the iPad, iBooks, and iBookstore applications.\textsuperscript{127} What do the business models of these players currently look like, and what is the potential for change in the nature of competition among them?


i. Amazon and the Kindle

Amazon.com, Inc. was founded in 1995 and started as an online bookstore. The company soon began selling many other products, listing more than 28 million unique items in such categories as DVDs, CDs, apparel, furniture, food, toys, and more. It is now the largest online retailer in the United States and generates more than half its revenues—about $25 billion a year—from products other than books.\(^{128}\) Amazon began selling e-books in April 2001, when Amazon teamed with Adobe Systems, Inc. to offer the Adobe Acrobat eBook Reader software in Amazon’s e-book store.\(^{129}\) Over the last ten years, Amazon has seen incredible growth in its e-book line; the company has gone from offering two thousand titles in 2001 to nearly one million as of May 2011.\(^{130}\) In November 2007, Amazon introduced its e-book reader, the Kindle, entering the nascent e-reader market. Amazon is the biggest market share claimant in the e-book market, with 70 to 80% market share.\(^{131}\)

Amazon’s homepage touts the Kindle as “The #1 Bestselling Product on Amazon.” Amazon also offers Kindle reading apps for iPad, iPhone, PC, Mac, Android, Blackberry, and more. The Kindle was designed to interface with Amazon’s online Kindle store, accessed via Amazon.com. It is worth noting that Amazon forces Kindle users to purchase e-books via the Kindle store (and does not offer a reading app for the Nook, Barnes & Noble’s e-reader).\(^{132}\) The Kindle uses a proprietary file format, so owners of


\(^{131}\) Carnoy, David, Amazon: We have 70-80 percent of e-book market, cnet.com, August 2, 2010, accessed May 10, 2011.

the Kindle must buy their e-books from Amazon.\textsuperscript{133} The Kindle operates wirelessly, allowing a user to access the Kindle store without first connecting the device to an internet-connected computer.\textsuperscript{134} The current generation of Kindle can store up to 3,500 titles in its memory and downloads e-books in 60 seconds. One of Amazon’s selling points for the Kindle is that it is “lighter than a paperback,” with a weight of 8.7 ounces and a depth of 1/3 of an inch. Amazon also notes features of the Kindle that are similar to reading a physical book on real paper. The Kindle webpage states there is no glare on the Kindle screen in bright sunlight, as on LCD screens. The device also has a PDF reader that offers a dictionary lookup and allows users to bookmark a page, highlight a section, or type notes as they read.\textsuperscript{135} Books that consumers purchase from the Kindle store are automatically backed up online in the consumer’s Kindle library on Amazon and can be re-downloaded wirelessly for free at any time.\textsuperscript{136} The Kindle models currently on offer range from $114 to $379, with the Kindle 3G priced at $189.\textsuperscript{137}

In January 2011, Amazon announced that for the first time, it had sold more Kindle e-books than paperback books, selling 115 e-books for every 100 paperbacks.\textsuperscript{138} The number of e-books available has grown from 90,000 at launch to 945,026 in May 2011.\textsuperscript{139} According to analysts, the Kindle has seen explosive growth since 2008, with estimated Kindle shipments increasing from 240,000 in 2008 to 8.5 million in 2010.\textsuperscript{140} Analysts forecast that the Kindle can generate revenue—tied to the Kindle unit,

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\textsuperscript{133} A user may be able to download software to convert files into Kindle-friendly formats, but the Kindle does not readily read any other e-book format.

\textsuperscript{134} http://electronics.howstuffworks.com/gadgets/travel/amazon-kindle.htm

\textsuperscript{135} http://www.amazon.com/Kindle-Wireless-Reader-3G-Wifi-Graphite/dp/B002FQJT3Q/ref=amb_link_84210231_2?pf_rd_m=ATVPDKIKX0DER&pf_rd_s=center-1&pf_rd_r=1DX3DF5D5TSX70P1QP0R&pf_rd_t=101&pf_rd_p=1294423022&pf_rd_i=133141011


\textsuperscript{137} http://www.amazon.com/kindle-store-ebooks-newspapers-blogs/b?ie=UTF8&node=133141011


\textsuperscript{140} Ibid.
accessories, e-books, and subscriptions—in excess of $5.42 billion in 2011 and $7.96 billion in 2012.\textsuperscript{141}

In addition to selling both physical books and e-books, Amazon uses its Amazon Upgrade program, launched in 2005, to intertwine the two markets. When a consumer purchases a physical book from Amazon that is a part of the Amazon Upgrade program, the consumer has the option to upgrade to online access to the book for an additional charge. The user has permanent access to view and search the full texts of purchased books using the Amazon Online Reader from any computer with an internet connection.\textsuperscript{142}

An analyst notes the way the Kindle enhances Amazon’s profits beyond the business of selling physical books: “We think that Kindle not only helps to remove multiple costs and inefficiencies in the traditional book printing and distribution business (e.g., print and fulfillment costs, back order risk, and inventory management) but also increases propensity to buy books/content and other adjacent products due to convenience and 24/7 access.”\textsuperscript{143}

Since the Kindle has been released, Amazon has become more flexible with certain policies to meet consumer expectations. For example, in November 2010, three years after the Kindle’s launch, Amazon made it possible for consumers to give e-books as a gift to anyone with an email address.\textsuperscript{144} In April 2011, Amazon reversed its decision to block Kindle users from borrowing e-books from libraries.\textsuperscript{145} Before then, only users of the Nook (either the reader or the app), the Sony Reader, and the Kobo reader could use library e-books.

\textsuperscript{142} Amazon.com: Read Your Books Online, , accessed May 11, 2011.
\textsuperscript{144} News Release: For the First Time, Give the Gift of Kindle Books (No Kindle Required), November 19, 2010, =, accessed May 11, 2011.
\textsuperscript{145} Bosman, Julie, Kindle Users to be Able to Borrow Library e-Books, April 20, 2011, accessed May 13, 2011.
ii. Barnes & Noble and the Nook

Barnes & Noble is the largest book retailer in the United States and is the only brick-and-mortar vendor of e-books of the three largest e-book market participants. In addition to its website, the company operates 705 retail bookstores and 636 college bookstores across the country. Barnes & Noble has claimed about 28 percent of the e-book market as of May 2011, putting it solidly behind the industry leader Amazon.

Barnes & Noble launched its eBookstore in July 2009. The company then introduced its e-reader, the Nook, in late 2009. The Nook was designed in conjunction with the eBookstore, as Barnes & Noble had partnered with Plastic Logic with the idea of “power[ing] the eBookstore for the Plastic Logic eReader device.” Nook in color was launched in October 2010 and was revamped in April 2011 to include a store to buy software applications and allow users access to email and web browsing with Adobe Flash player. The Nook operates with a touch screen, and its memory can accommodate up to 6,000 e-books. Barnes & Noble advertises that Nook users have a reading selection of over 2 million books, with more than one million that are free and most of the rest priced at $9.99 or less. The Nook Color is currently priced at $249. Nook can be downloaded as an application for the iPad, iPhone, Android, Blackberry, PC, and Mac operating systems. However, owners of a Nook cannot purchase e-books from Amazon or Apple because neither vendor offers a version of its e-reader software for the Nook.

As a brick-and-mortar business, Barnes & Noble faces the challenge of avoiding the path to bankruptcy that its competitor Borders took. Analysts suspect Barnes & Noble has remained a player in the book industry because the company was aware of the pending digital shift: “They went in with both feet, quickly got a device on the market as opposed to picking someone to partner up with like Borders did, and when the firestorm in 2010

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hit, they already had their device ready to go. Borders did not.” An analyst at Forrester research thinks Barnes & Noble has a better than 50% chance of surviving the switch to digital if it becomes even more aggressive about its Nook business. Analysts estimate there are currently about 2 to 2.5 million Nook users. A Goldman Sachs analyst report forecasts Nook-related sales going from $62 million in 2009, the year the Nook was launched, to an estimated $1.16 billion in 2012.

iii. Apple and the iPad

Apple entered the e-book market in January 2010, when it released the iPad tablet and iBooks application. iBooks lets users buy and download e-books from the iBookstore, which is fully integrated into the app, directly onto the iPad and then read the e-books on the iPad’s screen. When the iBookstore first opened, e-books were priced between $8 and $15. As of the unveiling, five of the largest publishers—Penguin, HarperCollins, Simon & Schuster, Macmillan, and Hachette Book Group—had content on the iBookstore.

The iPad is not a dedicated e-book reader, but it can be used as one with Apple’s iBooks application, Amazon’s Kindle application, or Barnes & Noble’s Nook application. However, the iBooks application is compatible with only the iPhone, iPod touch, and iPad. Apple claims that owners of the iPad have downloaded over 1.5 million e-books from the iBookstore. The iPad 2 is currently for sale and pricing starts at $499.

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152 Ibid.
157 iBooks Description, , accessed may 13, 2011.
D. RESEARCH QUESTION 2: HOW WILL THE EMERGENCE OF E-BOOKS IMPACT PUBLISHERS?

Between 2002 and 2008, the book industry saw annual sales growth of just 1.6%, and profit margins were shrinking. Publishers had slashed expenditures, laying off editors and publicists and becoming more cautious with unknown writers. In 2009, however, the e-book business began to show signs of great promise. Despite accounting for only 3 to 5% of the market, sales of e-books had increased 177% from the previous year, and analysts forecasted e-books would soon account for 25 to 50% of all books sold.160

As noted previously, Amazon’s Kindle is the leader in e-book sales. In 2009, Amazon was purchasing many e-books from publishers for about $13 and selling them for just $9.99, taking a loss on each book to gain market share and encourage sales of its e-reader, the Kindle. By the end of the year, Amazon’s sales of e-books accounted for 80% of total e-book sales, and $9.99 was the established price of an e-book. Publishers panicked, fearing such low prices would decimate their profits. David Young, the CEO of Hachette Book Group USA, said, “The big concern—and it’s a massive concern—is the $9.99 pricing point. If it’s allowed to take hold in the consumer’s mind that a book is worth ten bucks, to my mind its game over for this business.”161 Generally, under this reseller model, the online bookseller pays the publisher 50% of the list price of the e-book, which then retails for whatever price the bookseller chooses.162

Publishers were well aware of the similarity between Amazon’s market-share snatching strategy and the one that Apple employed to dominate the MP3 marketplace. As one publisher noted, “Get market share, and when you get far ahead it is hard to catch up. [Amazon’s founder] Bezos’s game, like [Apple’s founder] Jobs’s before him, is to get the device and get 80 to 90% distribution on the device, and you own the game.”163 Thus, when Apple introduced the iPad in 2009 as a rival to Amazon’s Kindle, the industry became hopeful that iPad would create more competition in the e-reader industry and

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possibly spark more interest in e-books themselves. Evidence of the industry’s optimism is captured in the nicknames for the iPad prior to its launch—it was referred to as “the Jesus tablet” and the “Messiah machine.” One journalist commented, “This is the most eagerly awaited product launch of the millennium so far: perhaps the most anticipated technological advance in history…There is a reason for the biblical tinge in the tablet’s nicknames. This device is seen as a potential savior of the written word.”

In sum, the upside of e-books for publishers is that publishers face lower costs to produce them and thus realize a higher profit margin; the downside is that the low price of e-books may result in decreased revenues. Thus, it remains to be seen how publishers’ profits will be impacted by the introduction of e-books. Over the last few years, the industry has seen decreasing sales of physical books and increasing sales of e-books. However, it is unclear whether sales of e-books represent shifted sales of physical books, or new sales driven by sales of e-readers that piqued consumer interest. It is also unclear how higher profit margins applied to lower list prices of e-books will compare with low profit margins applied to high list prices of hardcovers.

**E. RESEARCH QUESTION 3: HOW WILL THE EMERGENCE OF E-BOOKS IMPACT AUTHORS?**

Technological advances have allowed authors to cheaply or freely create and distribute their work without the publishers, editors, printers, or vendors. In other words, if an author chooses, he or she can reduce the supply chain to three players: the author, the distributor/vendor, and the consumer, cutting out the middleman publisher. Below, self-publishing models are described in more detail.

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Self-publishing is done without the involvement of an established publisher and uses a publishing system such as Amazon Digital Text Platform (DTP), Lulu, Barnes & Noble’s PubIt!, FastPencil, Publish Green, Scribd, or Smashwords. Many traditional media outlets do not review self-published books. Amazon was the first major market player to cater to self-publishers. Amazon’s DTP was offered in January 2010, when Amazon announced that it was ready to offer authors a 70% cut of the sales of e-books for Kindle customers. The catch was that authors had to agree to prices between $2.99 and $9.99. One irate publisher fumed that the offer was intended to “pit authors against publishers.”

Another self-publishing company is Lulu.com. Lulu advertises “free one-click publishing on the iBookstore,” and boasts that there are three easy steps to creating an e-book: uploading the file, choosing the e-book options, and publishing and selling. Lulu’s homepage encourages authors to self-publish e-books by contending that “authors who offer both print and e-book editions sell 30% more than authors with print only.” Authors selling e-books on the iBookstore through Lulu will earn $5.59 for every $9.99 e-book they sell. Apple takes a 30% commission on all sales, the author receives 56%, and Lulu takes the remaining 14%. When an author sells e-books through the company Smashwords, the author receives 60% and Smashwords receives 10%. Barnes & Noble has set the royalty rate for authors at 65% of the sale price for titles listed between $2.99 and $9.99. The rate falls to 40% if the price is below $2.99 or above $9.99.

Ian Freed, the Amazon vice president in charge of the Kindle, speaks to the success of the self-publishing model. He notes that many authors are enticed by the 70% royalty option.

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167 Memmott, Carol, Authors Catch Fire with Self-Published e-books, USAtoday.com, , February 9, 2011, accessed on May 10, 2011.
and that there are more self-published books available on Amazon since the self-publishing option was made available in 2007.\textsuperscript{172}

One example of an extremely successful self-publishing author is Amanda Hocking, who sells her novels as digital downloads for 99 cents to $2.99 on online bookstores and makes an estimated $2 million a year.\textsuperscript{173} She turned to selling her books electronically when she was unable to find a traditional publisher willing to work with her. She went from selling hundreds of copies of her books in May 2010 to 164,000 in 2010 and then to 450,000 copies in the month of January 2011 alone, making it into the top 50 of USA Today’s Best-Selling Books list.\textsuperscript{174} For every $2.99 book she sells, she keeps 70%, with the rest going to the online bookseller. She keeps 30% for every 99 cent book she sells.\textsuperscript{175}

Though an appealing option, self-publishing is unlikely to be the most advantageous path for all authors. When an author forgoes working with a publisher, he assumes the jobs of editing, design, and marketing himself. Another downside to self-publishing is that some brick-and-mortar vendors, like Barnes & Noble, do not stock self-published books. In addition, there is still the stigma in the publishing industry of self-publishing, where one is deemed to not be a “real author” if one is not working with an established publisher.

The benefits of self-publishing are that the author has creative license and that publication may cost little or nothing. Self-publishing taps into an entrepreneurial spirit many authors may have. Lisa Genova, the self-published author of \textit{Still Alice}, a novel that made it onto the \textit{New York Times} best-seller list, gives this advice to fellow authors: “I know so many writers who are sitting in a holding pattern, with a work completed, waiting to find a literary agent. They’re stuck…waiting to find out if they’re a ‘real

\textsuperscript{172} Carnoy, David, Amazon: We have 70-80 percent of e-book market, cnet.com, August 2, 2010, accessed May 10, 2011.
\textsuperscript{174} Memmott, Carol, Authors Catch Fire with Self-Published e-books, USAtoday.com, February 9, 2011, accessed on May 10, 2011.
\textsuperscript{175} \textit{Ibid.}
writer’ … If you don’t find a literary agent falling into your lap quickly enough, if you feel like your work is done and ready to be shared with the world, self-publish… You can do it yourself.”

In light of authors’ option to self-publish, publishers are now attempting to define their relevance in the digital world. Carolyn Reidy, the CEO of Simon & Schuster, said her foremost goal was “to prove our worth to authors every day.” The CEO of HarperCollins, Jane Friedman, observed, “The publishers are afraid of a retailer that can replace them. An author needs a publisher for nurturing, editing, distributing, and marketing. If the publishers are cutting back on marketing, which is the biggest complaint authors have, and Amazon stays at 80% of the e-book market, why do you need the publisher?”

V. CONCLUSION

In this paper, we have focused on three key copyright-driven industries, music, film, and books. In each industry, we first discussed the stages of the traditional supply chain. Second, we discussed the effects of digitization on that traditional supply chain, focusing on how digitization has radically reduced distribution costs, while simultaneously increasing the potential for piracy of content. Third, we provided a brief history of how new business models for the distribution of content in each industry have fared thus far. Finally, we considered how the intermediaries and the artists are likely to fare under the new regime. Below, we conclude with a series of research questions that might be pursued to obtain a better understanding of how these different industries will evolve over time.

178 Ibid.
A. MUSIC:

- Will traditional record companies remain profitable as content-providers rather than distributors?
- What legal solutions to copyright infringement can the music industry afford to pursue?
- What DRM solutions are available? Which DRMs are most user-friendly?
- What are the prospects for smaller or independent music labels?
- How will changes to the music industry affect the role of composers and performers?
- What new channels are there for marketing and promoting of music?
- Will advertising revenues for streaming content increase? Will they be sufficient to fund free content?
- What new entities will emerge as the equivalent of talent scouts in the music industry?
- Will new copyright schemes (e.g., compulsory licenses) emerge to address the legal issues presented by digitization and the internet?
- To what extent will the music industry be able to leverage or bundle associated goods to increase profits?

B. FILM:

- To what extent will consumers view internet downloads of movies as a substitute for going to the movie theater?
- Will consumers continue to demand physical copies of films, say, through film kiosks or Netflix subscriptions?
- Will traditional film studios be able to remain profitable as their power over the distribution function declines?
- What legal solutions to copyright infringement can the music industry afford to pursue?
- What DRM solutions are available? Which DRMs are most user-friendly?
• Will advertising revenues for streaming content increase? Will they be sufficient to fund free content?
• How will cable and television channels remain competitive in a world of streaming video content?
• Will advertising-based services continue to flourish, or will they shift to paid models? Will we see the evolution of “basic” and “premium” content in the area of online film and video, as we see in the broadcast and television industries?
• What prospects are there for independent film producers to flourish in the digital age?
• What other entities, if any, will contribute the promotion and marketing of films?

C. Books:

• To what extent will consumers view e-books as a substitute for a traditional book?
• Will consumers continue to demand traditional books, say, through Amazon or bookstores?
• Will traditional publishers be able to remain profitable as their power over the distribution function declines? How much profit can a publisher expect to make from an e-book?
• How will changes to the publishing industry affect the role of authors? Will self-publishing continue to increase in popularity?
• What new entities will emerge as the equivalent of talent scouts in the publishing industry?
• What new channels will emerge for marketing and promoting books?
• Under what conditions will the market for e-books continue to be closely tied to the market for e-readers?
• How would the introduction of “open source” e-books that are compatible with any e-reader affect the marketplace?
• What are the best options for dealing with piracy?
• What are booksellers’ best options for dealing with libraries?
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