Film Studios Welcome the Digital Age of Entertainment with Foresight, Confidence, and a Digital Survival Kit the Music Industry Never Possessed

The digital entertainment age is in full swing as new technologies change the way in which consumers access and consume entertainment content. A 2006 Harvard Journal of Law & Technology article described this convergence of technology and entertainment content that has occurred over the last 15 years; “[T]he combination of advancing compression technologies, wide availability of desired entertainment products in easily reproducible digital form, increasing computer power and storage capacity, and growing access to the Internet at broadband speeds formed the ‘perfect storm’”.¹

This is a generic description of how the digital entertainment revolution began. But the story is not just one of technology. The real story lies in the ways in which the music and video entertainment industries have reacted to these changes and how well each has survived the changing landscape. Despite the commons threats posed by free-flowing digital content, the business models and business strategies of the music and film industries have been very different and have produced different outcomes.

Over the last decade music industry revenues have disintegrated as consumers abandoned CD purchases and embraced online file sharing. The video entertainment industry² was spared the first blow because of larger file sizes and the later development of digital retailers and mobile playback devices for video content. However, Hollywood studios inevitably had to face the rapid technological changes that have rocked the world of recorded music. Like their music counterparts, film studio executives are now navigating rapidly emerging digital platforms and making real-time adjustments to accommodate to the consumer reactions that follow.

The video entertainment industry has proved to be more capable of adapting to and surviving in the new digital environment for a variety of reasons. First, they began with a stronger, more consumer-friendly business model that employs a sophisticated system of distribution on multiple platforms, at varying temporal windows, and at a variety of price points. Fortunately, one of those formats, theatrical release, has weathered the digital storm with amazing results. The music industry relied, to its detriment, on a single format, the album on CD, which was rapidly disassembled when music digitized.

Second, the film industry is making a smoother transition to new media. They have been quicker to embrace the internet and other digital distribution methods, whereas the music industry entrenched itself in older forms of media for nearly a decade, missing key opportunities to embrace emerging business models. The film industry has also been more successful in maintaining control of its distribution channels and pricing models, whereas the music industry found itself at the mercy of technology companies who were the first to develop digital music stores and who charged a high price for access.

² For the purposes of this paper “video entertainment industry” refers to the Hollywood studios that produce feature films and TV series and is also used interchangeably with the title “film industry”.
Finally, having had the luxury of observing the music industry’s failed anti-piracy strategies, the film industry is making efforts to avoid the consumer backlash that results from an overly-aggressive litigation strategy as well as overly-restrictive digital rights management (DRM) that prevents fair uses of purchased content. The film industry is working to create an interoperable landscape where consumers and flexible protection measures can peacefully coexist.

I. Stronger Business Model to Begin With

A. Varied Windows/Price Points/Formats

Music: only one format (discontinued single), angered consumers, relied on bundled albums to their detriment, led to Napster

During the late 1990’s, despite the huge popularity of pop band singles from the likes of ‘NSync and Britney Spears, the music industry did not continue offering music in single format when moved from cassettes to CDs. Consumers had to invest in an entire album in order to access popular radio singles. In the short term, full digital albums made more money than selling singles, so the music industry wiped out the single in the name of preventing “cannibalization” of album sales; it was a decision that would eventually frustrate consumers. It was hardly unexpected that a company called Napster evolved shortly thereafter and became an instant hit with consumers when it offered music in digital, single format. It was the “revenge of the single.” As discussed in the next section, the music industry had the opportunity to take this powerful expression of consumer preference and create a new business model; they did not.

An article in the economist sums up the lesson learned by the music industry with regard to consumer choice: “The best way to discourage [piracy] is to offer a diverse range of attractive, legal alternatives. The music industry has taken a decade to work this out, but it has now done so. Other industries should benefit from its experience – and follow its example.”

Film/TV: varying formats and price points to fit variety of consumer preferences didn’t force feed consumers bundled product so no need to redefine business model

The SVP of Intellectual Property at Warner Bros. points out that the film business has embraced a multi-faceted distribution model for many years; film offers many avenues of distribution at a variety of price points, starting with premium theater-viewing, to subscription services, to ad-supported TV broadcasts. He points out that the music industry is starting to regain some ground with ad-supported streaming

4 Id.
5 Id. at 106-07
6 Id. at 106-07
7 Id. at 106
9 Telephone Interview with Dean Marks, Senior Vice President, Intellectual Property, Warner Bros. Entm’t Inc. (Sept. 29, 2010).
services like Pandora and Slacker Radio, but that such efforts were a late reaction to plummeting CD sales. 10

One of the reasons the film industry has maintained more stable revenue than the music industry is not directly related to piracy but is related to the way they monetize their paying customers. Film studios are able to maximize revenues from paying customers by using staggered release windows that offer the same movie at varying price points depending on the format and the proximity of the window to the original theatrical release. 11 Before discussing the recent and upcoming modifications to release windows it is important to understand the traditional sequence of release windows and the value proposition associated with each.

First, the film is released in theatres, where consumers pay a premium price to view the content. The average US ticket price in 2009 was $7.50. 12 Four to six months later the film is released on DVD for purchase and rental. At various times after the DVD release, the film is then licensed to online rental stores, the cable companies’ on-demand movie services, Redbox, etc. At even later intervals, the film may be available on TV in a free, ad-supported format. By the time the film is available for $1 per night at the Redbox or as a free TV broadcast, it has passed through a distribution chain that has maximized revenue from consumers willing to pay more for earlier or premium viewing experiences. (see chart on next page showing release windows by month)

LIFE CYCLE OF A FEATURE FILM: RELEASE WINDOWS BY MONTH 13

10 Id.
11 Interview with Thomas Gewecke, President of Digital Distribution, Warner Bros. Entm’t, Inc., in Burbank, Cal. (July, 2010).
13 Telephone Interview with Clarissa Weirick, Senior Vice President, Digital Distribution Legal, Warner Bros. Entm’t Inc. (Sept. 3, 2010).
B. Critical Theatrical Exhibition Revenues Less Susceptible to Piracy

Despite heavy online piracy of films, their availability as a theatrical release has protected their profitability. The Electronic Frontier Foundation reported that the most pirated movie of 2009, Star Trek, will make over $100 million in profits.\(^{14}\)

Box Office revenues make up a significant portion of major studio revenues:

<table>
<thead>
<tr>
<th>Top Grossing Movies: 2008-2010</th>
<th>Total Box Office(^{15})</th>
<th>Total DVD Sales(^{16})</th>
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</thead>
<tbody>
<tr>
<td>2010 Toy Story 3</td>
<td>$414,806,932</td>
<td>$89,631,186 (on-going)</td>
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<tr>
<td>2009 Transformers: Revenge of the Fallen</td>
<td>$402,111,870</td>
<td>$208,850,706</td>
</tr>
<tr>
<td>2008 The Dark Knight</td>
<td>$531,001,578</td>
<td>$191,678,574</td>
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</table>

Over the last decade theatre revenues have consistently grown:

**Total U.S. & Canada Box Office Grosses (in billions): 2000-2009\(^{17}\)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Box Office</th>
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<tbody>
<tr>
<td>2009</td>
<td>$10.6</td>
</tr>
<tr>
<td>2008</td>
<td>9.634</td>
</tr>
</tbody>
</table>

\(^{14}\) Most Pirated Movie of 2009 ... Makes Heaps of Money, by Fred von Lohmann, Dec. 31, 2009. Available at [www.eff.org/related/8940/blog](http://www.eff.org/related/8940/blog)

\(^{15}\) The Numbers: Box Office Date, Movie Stars, Idle Speculation, NASH INFO. SERVICES, LLC (1997-2010), www.thenumbers.com/market.

\(^{16}\) Id.

\(^{17}\) Nat’l Ass’n of Theatre Owners, *supra* note 10 (citing research from Rentrak Corporation).
2007    9.632
2006    9.17
2005    8.82
2004    9.29
2003    9.15
2002    9.09
2001    8.11
2000    7.51

Despite downward trends in physical sales, box office revenues continue to grow. In 2009, U.S. box office sales surpassed DVD sales for the first time since 2002. This was a result of box office sales increasing 10% between 2008 and 2009 and DVD sales, including Blu-Ray discs, dropping by 13% over the same period.

**Consumer Spending on Movies by Format: 2008-2009**

<table>
<thead>
<tr>
<th>Watching</th>
<th>Consumer spending on forms of movies, in billions</th>
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</thead>
<tbody>
<tr>
<td>Theatrical</td>
<td>2008</td>
</tr>
<tr>
<td></td>
<td>2009</td>
</tr>
<tr>
<td>Disc rental</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Disc purchase</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable/satellite telco rental</td>
<td>1.09</td>
</tr>
<tr>
<td>Online rental</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Online purchase</td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td>Source: Adams Media Research</td>
<td></td>
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</tbody>
</table>

The movie theatre is a critical part of the experience of consuming the content that cannot be duplicated by file swapping online.
- cannot pirate/reproduce this experience
  - technology of theaters
  - social experience of theaters

As one major studio executive explained, even teens who pirate content for home viewing will still go to theatre to get out of the house and meet up with friends.

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19 Id.
20 Id.
Music has concerts, but concerts have not been given the same central role in distributing recorded music and is not the first, exclusive source of consuming the content upon its release. Concerts also have the added burden of putting the concert after the music is released so it has to be a popular album in order to garner concert ticket sales.

II. Film Industry is Making a Later, Smoother Transition to Digital

A. Strategic Adoption of New Models

1. Willingness to adopt internet distribution and new pricing models

Music: failure to embrace new business model, failure to capitalize on Napster
Eventually litigation against Napster for copyright infringement forced the digital music service and the record labels to sit down together at the bargaining table. According to a party privy to those meetings, there was discussion of a subscription service ranging between $5-10/month. Napster executives believed that half of their visitors would leave if a subscription fees was charged. With over 26 million users at its peak, even if half paid a monthly fee, billions of dollars would have flowed to the music industry if they had negotiated a revenue sharing agreement with Napster. But the music industry was stubborn; it wanted to take over Napster (90% of revenues was what they had in mind) or shut down the service all together. Napster was thinking more along the lines of a 50/50 split. The music industry would not accept anything less than a takeover or a shutdown of the service. It was the later; after failed negotiations and an unfavorable judicial opinion Napster and its 26 million users ceased to exist. As one party involved in the negotiations stated, the “copyright community squandered an enormous opportunity to grow, expand, evolve, and harness the new ... to their own grand detriment.” In fact Napster could have offered many of the distribution tactics the music industry would someday look enviously at the film industry for: tiered pricing, ad-generated revenue, and a huge on-line consumer base. Almost a decade after record labels missed the Napster boat, they continued to resist the internet as a primary means of connecting with fans and distributing music. Because the first uses of the internet to disseminate music were illegal P2P services, many label executives were left with a bad taste in their mouth and would not authorize the use of such tools for legal promotion of music. It wasn’t until the last few years that the music business embraced the idea of distributing music online, even for free, as a promotional strategy to create other forms of indirect

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23 Knopper, supra note 3, at 138-141.
24 Interview with Hollywood-based entertainment attorney (must remain anonymous), December 2010.
25 Id.
26 Knopper, supra note 3, at 142.
27 Id. at 140
28 Id.
29 Id. at 138.
31 Knopper, supra note 3, at 142.
32 Knopper, supra note 3, at 198., Interview with Thomas
income. In fact, the concept is a recent enough development to be a major topic of discussion at the 2010 Midem music conference.

On the other hand, the film industry has embraced digital distribution on the internet more quickly and extensively than the music business ever did. One example is their licensing arrangements with internet video site Hulu.com. Hulu is an online aggregator and distributor of licensed video content. Since the launch of its site in March of 2008, Hulu has offered popular TV series and feature films on an ad-supported basis. In just a few short years, Hulu is now ranked in the top online video websites in the U.S. A recent ranking by comScore Inc. placed Hulu second in online video viewing, with 912.5 million videos viewed in the month of February 2010. Google is still the dominating force with 42% of total internet video views; almost all of its video views occur on its YouTube property.

<table>
<thead>
<tr>
<th>Top U.S. Online Video Content Properties* by Videos Viewed: February 2010</th>
<th>Videos (000)</th>
<th>Share of Videos (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Internet Audience</strong></td>
<td>28,123,542</td>
<td>100.0</td>
</tr>
<tr>
<td>Google Sites</td>
<td>11,950,024</td>
<td>42.5</td>
</tr>
<tr>
<td>Hulu</td>
<td>912,525</td>
<td>3.2</td>
</tr>
<tr>
<td>Microsoft Sites</td>
<td>622,569</td>
<td>2.2</td>
</tr>
<tr>
<td>Yahoo! Sites</td>
<td>454,761</td>
<td>1.6</td>
</tr>
<tr>
<td>Turner Network</td>
<td>317,623</td>
<td>1.1</td>
</tr>
</tbody>
</table>

*Rankings based on video content sites; excludes video server networks. Online video includes both streaming and progressive download video.

YouTube offers similar content as Hulu, but Hulu hosts only licensed content, not user-generated content; unlicensed YouTube content can be removed pursuant to a take-down notices from the copyright holder. Hulu is one of the first successful unions between TV and the computer.

Current equity partners in Hulu are Disney, News Corp., NBC Universal, and one non-content investment partner. In Disney’s press release about its partnership with Hulu, the President and CEO of Disney

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34 Id.
35 Id.
37 Id.
38 Id.
40 Id.
41 Id.
42 Id.
44 Id.
saves that streaming ad-supported videos is part of an effort to meet the “constantly evolving viewing habits of our consumers.”46 When Hulu closed its deal with Disney, it simultaneously renewed its deals with News Corp. and NBC Universal on the same terms as Disney.47 These deals give exclusivity to Hulu as the only off-network distributor, making only a few exceptions for pre-existing web partners.48

In June of 2010, Hulu started offering Hulu Plus, a premium subscription service that gives access to more video content for $9.99/month.49 Hulu Plus will be offered on a most computers, video game consoles, and mobile phones.50 This is the first time Hulu has charged consumers for access to video content.51 The advertising-supported model worked better for traditional TV broadcasts than on the internet.52 Online advertising revenues are less than ad revenues generated through traditional media, such as broadcast.53

2. Willingness to adapt current release windows

Until recently, release windows for movies have changed very little. However, over the last couple years, film studios have been revisiting the traditional distribution scheme in order to accommodate to new digital consumption patterns. These changes include the collapse of previously distinct release windows as well as the proposed creation of a new early-release window for home viewing.

MAJOR STUDIO THEATRICAL RELEASE WINDOW: 2000-201054

45 Hulu, supra note 36.
48 Id.
50 Id.
51 Id.
52 Id.
53 Id.
54 Nat’l Ass’n of Theatre Owners, supra note 12.
Collapsing Existing VOD Windows (Day and Date)

Some of the first tinkering with release windows was film studios’ collapse of the traditional VOD window with the DVD release date. Warner Bros. was the first studio to offer VOD titles “day and date”, meaning on-demand rentals were available at the same time as the DVD was available for purchase. Other studios, including Sony and Universal, have subsequently experimented with simultaneous DVD/VOD release dates.

The studios have had to balance competing interests in making such a decision. Simultaneous VOD release may eat into sales of DVDs. However, the studios recognize the market trend is moving away from purchase of physical product and toward digital rental models. As consumers naturally stray from DVD purchases, it is important to offer legal alternatives during the same time frame so that consumers have access to content when they want it and in the format they want it in. Unlike the music industry, which was slow to respond to changing consumption preferences, the film industry wants to prepare for a smooth transition between distribution platforms to avoid leaving gaps where illegal downloading is the best or only solution to consumer demand.

It is also important that the studios offer the VOD rentals before Redbox offers the same titles through their kiosks for $1 night. The studios make more money from VOD rentals than Redbox rentals, both because of the higher price point for VOD rentals, as well as the higher revenue sharing arrangements for VOD.

Addition of New Premium VOD Window – Nipping at the Heals of Theatrical Release?

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55 Weirick, supra note 13.
56 Diane Garret, Studios Collapsing VOD Windows: Goal is to Combat Sagging DVD Sales, VARIETY, Oct. 8, 2009.
Warner Bros. is nearing agreements with distribution partners for a Premium VOD offering, which would make films available through cable on-demand services shortly after the film debuts in theaters. The films offered during this window would carry a premium price tag of $20-30 per viewing. Time Warner has announced a 2011, second-quarter launch of the service. Although there have been no definitive announcements about how long after theatrical release this new window will be placed, Warner Bros. executives are considering a 60-day window. Similarly, Variety news service reported that other studios have promised theater owners that they would not support a 30-day window, but that a 60-day window would be something they would consider.

The rationale behind such an offering is two-fold. First, by making a film available for home viewing sooner the studios believe they may prevent some piracy; Second, additional revenues from this new window will help mitigate declining DVD sales. Theater revenues have mostly been realized by the 60-day point, so the studios don’t feel the new window will not harm box office revenues.

However, not everyone supports tampering with the theatrical release window. In June 2010, the National Association of Theater Owners (NATO) posted a three-page statement in opposition to the Premium VOD Window on their website. A statement from their European counterparts, the International Union of Cinemas, supports NATO’s position against the new window. Their argument is that whether the new release window is “a response to increasingly fragile DVD income or in an attempt to thwart piracy, such developments should not occur at the expense of the one part of the value chain which undoubtedly works – theatrical exhibition.” NATO points out “four decades of box office growth and three straight years of record-breaking theatrical box office” as a reason not to change something that is working well.

They also make a more complex argument about undercutting the value proposition upon which the current release windows operate. They argue that consumers understand the current value proposition of release windows: a higher value format (theater exhibition) and an early release date command a premium price. By offering a non-premium format (cable rental) early in the film’s life cycle, the value of the thriving theater business will be undercut. As an example of this concern NATO points to the studios’ struggle to maintain a DVD market with a variety of lower-priced rental and purchase

58 Id.; see also Gewecke, supra note 11; Weirick, supra note 13.
59 Rabil, supra note 57.
60 Gewecke, supra note 11; Weirick, supra note 13.
62 Rabil, supra note 57.
63 Weirick, supra note 13.
64 NATO’s Position on the Premium Video On Demand Window, NAT’L ASS’N OF THEATRE OWNERS (2009), www.natonline.org/window.htm
66 Id.
67 Nat’l Ass’n of Theatre Owners, supra note 64.
68 Id.
69 Id.
options biting at its heals. They question why the studios would opt to introduce “the same kind of profit-cannibalizing self-competition into their highest value distribution channel.” NATO further references “what is left of the music industry” and cautions the film industry not to make the mistake of trying to replace old media with new media, but to focus on how to maximize revenues by integrating old and new media.

The music business has not set up staggered release dates, awarding a higher value to the music the closer it is to its release date. Thus they do not have this same opportunity to charge premiums or to manipulate windows in order to adjust to changing consumption patterns.

B. Maintaining Control of Distribution Channels and Pricing Models

In addition to reducing piracy by creating convenient, legal options, the video entertainment industry foresees another major benefit of being the architects of the new Ultraviolet ecosystem; they hope to prevent Apple from dominating digital film and TV distribution in the way they have dominated digital distribution of recorded music.

It is critical that the studios be able to control content pricing of their content. This control allows them to address shifting consumer preferences, maintain the value propositions created by their various release windows, and to orchestrate a smooth transition to new digital distribution platforms while gracefully ushering out older media without cannibalizing the channel too quickly. For example, if digital content is priced too low, the market for physical DVDs and Blu-Rays discs would be threatened. (cannibalization of old media) If the price of digital content is set too high, consumers will seek other sources such as illegal P2P sites and cheaper rental services that are less profitable than purchases.

Music: let Apple dominate and dictate business models and prices, dependent

Apple’s relationship with the recorded music industry is a stark example of what can happen when a content distributor wields the power to control format and price of the content they distribute. Although Apple stepped into industry stardom with the 99-cent music download, most agree that this pricing model destroyed the music industry’s album-centric business model. The industry was moving in a direction where labels would have had to adjust their business model, but undoubtedly they would have preferred to do it on their own terms.

If a lesson is to be learned by other industries, it is important to understand how and why Apple wielded such control. In the late 90’s and early 2000’s, the music industry spent over $5 million on a think tank called the Secure Digital Music Initiative, which ended up producing no consumer-friendly solution to digital music distribution. Apple was the first company to develop a functional online music store.

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70 Id.
71 Id.
72 Id.
74 Id.
76 Knopper, supra note 3, at 150-56.
77 Knopper, supra note 3, at 170-72.
Apple was also one of the original proponents of the “content as bait” strategy. They used cheaply-priced music content to bolster sales of its iPod devices. This model was also successful for earlier music content distributors; cable TV used freely-provided music videos to create the MTV brand and retail chains like Best Buy and Wal-Mart provided the lowest priced CDs in order to lure customers to its other more profitable items, such as stereo equipment. By the mid-1990’s Best Buy and Wal-Mart were selling nearly one fifth of all albums which put them in a position to dictate terms to the record labels. Once Apple reached a similar status as a device provider they had enormous clout over content providers who needed their popular distribution infrastructure to connect their content with consumers. In this position, Apple was able to dictate price and format requirements to the record labels. This included fixed 99 cent pricing and DRM that made iTunes downloads incompatible with non-Apple devices. Record label executives soon found themselves feeling “cheated”.

In early 2009, the major labels were finally able to negotiate their FIRST flexible pricing scheme for music downloads sold in the iTunes store. But the labels’ newly negotiated right to mark up premium content came at a high price. The labels had to give up DRM protection of their songs and agree to license their catalogs for wireless downloads to iPhones (signing themselves onto Apple servitude on yet another distribution platform).

Music executives interviewed on the subject said they “operated in fear of Apple’s removing a label’s products from the iTunes store over a disagreement.” A digital media analyst at Forrester Research described Apple as “the biggest game in town” but also commented that “If it weren’t for Apple, God knows how bad the music industry would be.” Regardless of how one feels about Apple’s licensing practices, it isn’t hard to see why Hollywood studios have taken a harder stance toward the terms upon which they will relinquish their video content. As discussed below, the studios have for the most part been successful in blocking Apple’s encroachments upon their pricing models thus far.

**Video Entertainment: developed own distribution channels, stood their ground on control of pricing**

Recently Apple proposed to do the same “content as bait” strategy with TV episodes in conjunction the release of the Apple TV. Apple hopes to bolster sales of its new Apple TV device by offering it in conjunction with a TV episode rental service. The service will be available on the new Apple TV and

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78 Knopper, supra note 3, at 178-79.
79 **Id.**
80 Knopper, supra note 3, at 172; Tim Arango, Despite ITunes Accord, Music Labels Still Fret, N.Y. TIMES, Feb. 1, 2009.
81 Knopper, supra note 3, at 109.
82 **Id.**
83 The Economist, supra note 73.
84 Knopper, supra note 3, at 180.
85 **Id.**
86 Arango, supra note 80.
87 **Id.**
88 **Id.**
89 **Id.**
will price popular TV show rentals at 99 cents.  

Most of the major studios have declined to participate in the rental service—including Time Warner, NBC Universal, CBS, ABC, and Sony Pictures. Content providers feel the price point is too low and would damage their current economic model. Currently, major network TV episodes are available for $2.99. The studios and networks are concerned that under-pricing TV episodes online will detract from the billions of dollars that flow to the TV industry from cable subscriptions and broadcast advertising revenues. These revenues are not realized when consumers purchase content piece-meal instead of viewing the content as part of a TV broadcast. A recent report from a Wall Street brokerage firm said that “we recognize that there will be some incremental revenue from downloads, but assume most viewership will be a substitution for traditional TV viewing and hurt the long-term TV business model.” Studios also worry that the availability of inexpensive TV episodes online will prematurely destroy the market for DVDs of TV show seasons. In sum, studio executives believe the 99-cent price point will devalue the content and destroy the downstream windows necessary to the studio’s business model. Memories of Apple’s disassembly of the album-centric business model, relied upon by the music industry, is still fresh in their minds and they don’t care to expose themselves to the same vulnerability.

Only Disney and 20th Century Fox have agreed to offer TV episodes through Apple’s rental service. Despite limited participation by the major studios, Apple CEO, Steve Jobs seemed supremely confident in his September 2010 keynote address where he stated that “… the rest of the studios will see the light and get on board pretty fast.” However, the studios have successfully resisted previous Apple schemes that offered reduced-price TV content, including a proposal to sell 99-cent downloads and a bundled monthly offering.

The development of a digital market for films has been slower than for recorded music, but industry analysts have long anticipated Apple’s plans to distribute feature films. As early as 2006, the major Hollywood studios were refusing to participate in an Apple scheme to sell movies online for $9.99. A studio executive commented on the Apple proposal: “We can’t be put in a position where we lose the ability to price out most popular content higher than less popular stuff.” So far the film studios have stood their ground, but this is a power struggle that has yet to play out.

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92 Id.; see also Chmielewski and Fritz, supra note 90.
93 Lane, supra note 91.
94 Chmielewski and Fritz, supra note 90.
95 Id.
96 Id.
97 Id.
99 Id.
100 Chmielewski and Fritz, supra note 90.
101 Lane, supra note 91 (quoting Jobs keynote speech).
102 Wallenstein, supra note 98.
104 Id.
105 Id.
C. Different Content Protection Strategies and their Affect on Consumers

Piracy is a huge problem. By 2003, 4.3 million people were illegally sharing music files at any given moment.  

1. DRM

a. Presence of DRM

**Music:** conceded to pressure to remove DRM on computers and now iTunes

When new CD playback devices became capable of producing perfect reproductions without deteriorating sound quality, the music business became increasingly concerned about wide-scale piracy. In response to pressure from the music industry, Congress passed the Audio Home Recording Act (AHRA) in 1992 which required that audio recorders be equipped with an early version of DRM that restricted copying capabilities of the devices. However, computer companies understood at this early juncture that laptop computers capable of copying unlimited amounts of digital music would make the devices more attractive to consumers and fought vigorously for an exception in the AHRA. Despite the record labels’ protests, Apple and IBM threatened to kill the legislation if they were not cut out of the restrictions. In order to get the bill passed, the record labels conceded to an exemption that would allow computer companies to sell computers with recording devices and no copying restrictions. As a result, during the 80’s and 90’s, millions of CDs were distributed in a virtually unprotected format.

**Film:** always maintained DRM protection, DMCA protection

DRM prevents innocent infringement – people know they are circumventing a blockade  
- prevents people with no intention to commit an illegal act from doing so  
- would also counter an innocent infringement defense which reduces copyright infringement damages.

The presence of DRM on physical and digital copies of film and TV shows also provides additional legal protection. The removal, or circumvention, of DRM or the distribution of tools primarily used to circumvent DRM of copyrighted materials creates a cause of action, without the presence of actual copyright infringement, under the Digital Millennium Copyright Act (DMCA) of 1998. This “anti-circumvention” provision creates liability for an individual who “circumvent[s] a technological measure that effectively controls access to” copyrighted works. Prior to the DMCA, there was no cause of action for circumventing protective technologies like DRM, only for unauthorized copying of the copyrighted work. Although DRM circumvention can be done for legal purposes, the DMCA was

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106 Knopper, supra note 3, at 185 (citing website BigChampagne.com).
108 Id.
109 Knopper, supra note 3, at 78-79.
110 Id.
111 Id.
112 Id.
114 Id.
115 Chamberlain Group, Inc. v. Skylink Tech., Inc., 381 F.3d 1178, 1195 (Fed. Cir. 2004)
enacted in recognition of the ease of digital piracy; it shifted the burden of showing a non-infringing use of copyrighted material upon the defendant who had circumvented the protection technology. However, these DMCA only applies “where a copyright owner has employed a "technological protection measure" to protect a copyrighted work. In other words, a copyright owner must take some steps to "lock up" her content to obtain section 1201’s protections.”

b. Interoperability of DRM

“Piracy is a business model we need to compete with, ... if we make it easier to buy than steal, people will buy.” This statement from a ___ executive convey a common belief that piracy of entertainment content is fueled by unmet consumer demand. In other words, most people will pay for content if it is accessible in a variety of formats and priced in accordance with their preferences.

Music: DRM created interoperability between devices, fueled piracy instead
When the music industry tried to re-implement DRM protection of its recordings, it met with negative consumer reactions because the protection methods were highly restrictive and had a negative impact on the consumer’s user experience. In particular, consumers have been reluctant to purchase digital content in a fragmented digital ecosystem where purchased content is often compatible only with certain devices, databases and media players.

Perhaps reluctant is not the right word to describe the consumer reaction to DRM-protected music.

Consumers Rejected DRM-Protected Music
-National Protests: www.defectivebydesign.org
-Piracy Increased

Government Acknowledges Legal Support for Interoperability on Fair Use Grounds
Interoperability is no longer just a consumer preference but is increasingly being recognized, legally, as necessary to protect consumers’ fair use of copyrighted materials.

In a well-know DMCA anti-circumvention case, the district court in the second circuit pointed out the tension between DRM protection and copyright fair use. The court stated that DRM can function to “prevent those who wish to gain access to technologically protected copyrighted works in order to make ... non-infringing use of them from doing so.” “Technological access control measures have the capacity to prevent fair uses of copyrighted works as well as foul.”

116 Id. at 1196.
122 Id.
The legislative branch is also easing the anti-circumvention protections of the DMCA in order to allow more interoperability in the world of digital copyrights. The DMCA requires the Library of Congress to conduct rulemaking sessions every three years to certify exceptions to the DMCA for activities that the Library of Congress determines represent non-infringing uses of copyrighted materials.123

At the 2010 rulemaking hearing, the Library of Congress issued a DMCA exception that allows iPhone owners to manipulate the phone’s closed operating system in order to make it interoperable with non-Apple approved applications.124 The decision was made on the basis of fair use and that there is a congressional interest in interoperability.125 The Rulemaking Order issued by the Librarian of Congress states, “when one jailbreaks a smartphone in order to make the operating system on that phone interoperable with an independently created application that has not been approved by the maker of the smartphone or the maker of its operating system, the modifications that are made purely for the purpose of such interoperability are fair uses. Case law and Congressional enactments reflect a judgment that interoperability is favored.”126

Consumer groups hope that Congress will extend interoperability exceptions to the world of digital music and video. EFF quote..

One proposed piece of legislation has been proposed by consumer advocacy group, Digital Consumer. Digital Consumer recently posted a Consumer Technology Bill of Rights that it says it intends to get passed into law by Congress.127 The proposed bill would support consumer’s copyright fair use rights against protective technologies and the anti-circumvention laws that support them.128 The proposed bill of rights would protect the consumers’ rights to do the following things with legally acquired content:

1. "time-shift" it (right to record video or audio for later viewing or listening.)
2. "space-shift" it (right to use it in different places as long as each use is personal and non-commercial.)
3. Make backup copies.
4. Use it on the platform of their choice.
5. Translate it into comparable formats.
6. Use technology in order to achieve the rights previously mentioned.129

Film: Responded to Consumer Demand for Interoperable Digital Ecosystem
The other major advantage that the film industry has gained by being a second-comer to digital distribution and online piracy, is that they understand the critical role interoperability plays in meeting consumer’s digital preferences and in preventing piracy fueled by inconvenient restrictions on legal consumption.

DECE and Ultraviolet

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123 Digital Millenium Copyright Act, supra note 99, at §1201(a)(1)(b)-(c).
125 Id.
126 Id.
128 Id.
129 Id.
The video entertainment industry has been proactive in their efforts to create standardization and interoperability between the major content and technology providers. The Digital Entertainment Content Ecosystem (DECE) is an industry-wide consortium charged with creating an “open market for digital content distribution.” 130 The membership includes nearly 60 companies consisting of most major film studios, consumer electronics companies, video entertainment retailers, and other content and technology companies. 131 Notable members include Best Buy, Cisco, Comcast, Fox, Intel, Microsoft, Motorola, NBC Universal, Netflix, Panasonic, Paramount, Philips Electronics, Samsung, Sony, Toshiba, and Warner Bros. 132

Their solution to the issue of interoperability: a system called Ultraviolet. Ultraviolet is an industry-wide, cloud-based, digital locker service. Translation: consumers can purchase movies or tv episodes from any member retailer in either digital or physical format. They would register those titles to their online Ultraviolet account. Titles in the consumer’s Ultraviolet account, or “locker”, can be accessed and streamed to any device manufactured by a DECE member regardless of where they were purchased or in what format they were purchased. The guiding principal of the initiative: “Buy the Experience, Not the Format”. 133

**Disney and Keychest**

The two major players absent from the DECE/Ultraviolet member roster are Apple and film studio, Disney. Apple CEO, Steve Jobs, is Disney’s largest shareholder and a member of the Board of Directors. 134 Thus Apple and Disney often have a shared agenda. In support of its own digital store and closed technology infrastructure, Apple is not as of yet supporting the Ultraviolet system. Apple has long gotten away with selling content that is inoperable on non-Apple devices because it totes the most innovative devices for accessing content and thus has generated little demand to take Apple-bought content to other devices. At least in the music industry, such a strategy also worked because the entire landscape of music retailers and playback devices was fragmented. Most were inoperable with each other and, for many consumers, being stuck in the Apple world of devices was the least of the evils.

Consumers “increasingly rely on computers and cell phones in place of DVD players and TVs.” 135 Disney’s adaptation to these changing consumption patterns is a digital locker system called Keychest. 136 The project redefines ownership “as access rights, not physical possession.” 137 Like the DECE system, the consumer would pay for a title in any format, enter the product code to their account, and access that file in digital format on an array of devices. This goes beyond streaming to one device; the goal is to be accessible on all internet platforms. 138 Accessibility means both interoperable interfaces and

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131 Id.
132 Id.
133 DECE Website: www.uvvu.com
134 Sandoval, supra note 103.
136 Id.
137 Id. (quoting Disney press release)
138 Id.
interoperable DRM systems. Contrary to some support for a DRM-free infrastructure, Keychest has announced it will use adaptable DRM system. A Disney spokesperson explained the DRM plan: “If you bought a movie off Amazon for example, and wanted to play it on your iPhone, it would take on the DRM characteristics of iTunes. DECE has not yet committed to a position on DRM (check website). A Disney spokesperson differentiated Keychest from competitor DECE as being an “open” system compared to DECE’s Ultraviolet system as a “closed system that would compete with existing regimes.”

Advantages over:
DVDs – don’t have same accessibility on range of devices
Downloads: content streams so does not use up a lot of hard drive space.

Some Obstacles:
The service needs membership to be worthwhile – device manufacturers, content providers, and content aggregators/distributors must sign-on to the program. Someone will have to pay high cost of bandwidth required to operate the digital lockers. U.S. doesn’t have the “fiber infrastructure to support widespread use of the cloud-based VOD.”

The video entertainment industry clearly means to take another approach to digital distribution of film and tv content. Besides Apple and Disney, nearly every other major player in the video entertainment industry is supporting the Ultraviolet infrastructure. The result will be two distinct ecosystems in which consumers can purchase and play back video content: Apple and Everyone Else. Seasoned commentators in the industry expect this to lead to an ultimate showdown where Apple’s domination will be tested. Apple will clearly hold out on making their content and devices interoperable with the rest of the universe. The question will be whether the major film studios (and eventually the major record labels) will be willing to pull their content from Apple’s store in order to force Apple’s hand in becoming a “compatible player” in the Ultraviolet ecosystem. The loss of Apple as a distribution partner is a high price to pay for a chance to create a uniform consumer experience in the digital landscape. Despite the tension caused by these competing interests, Apple and Hollywood have maintained, at least up until this point, what is a critical provider-distributor relationship for all parties involved.

2. Litigation Strategy

Music: RIAA lawsuits angered, alienated consumers
One major film studio executive recounts his experience as the head of business development at a major record label at the time when record sales first began plummeting. He said the only solutions discussed and embraced at meetings were to sue infringers and to do better A&R with the hopes that consumers

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139 Greaves, supra note 118.
140 Id.
141 Id.
142 Id.
143 Id.
144 Smith, supra note 135.
145 Greaves, supra note 118.
146 Id.
147 Id.
148 Id.
would return to paying for music if it were of a better quality. In fact, for nearly a decade the music industry used litigation as its main weapon against online piracy. It has sued over 18,000 individual downloaders.

As the first to deal with digital piracy, the music industry had the added burden of educating the public about the illegality of music downloading. In a recent interview, the President of the RIAA explained consumer perceptions at the time when the RIAA first began massive infringement lawsuits against downloaders: “We did all sorts of surveys ... most people had no idea that what they were doing was illegal, let alone thought it was wrong.” The RIAA admits that the lawsuits were meant as a stern PR campaign to wake up the public to the illegality of online file-swapping. “[Y]ou have to choose between your wish to be loved and your wish to survive. The purpose [was] to get the message out” said the then-current RIAA president. The epic failure of these law suits has been a dark spot on the music industry’s history. Not only was the effort ineffective in deterring the ever increasing traffic of illegal online file trading, it soured the music-consuming public to the music industry. The RIAA even received death threats. Lawsuits against P2P sites like Grokster and Kazaa, even when won on the legal front, did not stop new P2P services from immediately cropping up and file sharing continued to increase.

A major movie studios executive said there was a period when brought infringement lawsuits against consumers but moved away from such as strategy because the studio didn’t feel it was effective in deterring piracy and that it tended to alienate fans who could still prove to be a valuable source of future revenue.

Film: less reliance on litigation, lawsuits focused on host sites not individuals

In sum, the film industry has grasped that file swapping is not easily cured, or stopped, and unlike music, will not base their anti-piracy strategies on over-restrictive DRM or litigation. Perhaps the film executives are a more progressive group, or perhaps they have simply have had the luxury of making decisions within the context of a better-developed digital landscape and with the benefit of knowing how to avoid the self-destructing strategies employed by the music business.

III. Nature of Product

A. Varying File Sizes

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149 Gewecke, supra note 11.
151 Id.
153 Knopper, supra note 3, at 184.
154 Id.
156 Knopper, supra note 3, at 195.
157 Warner Bros. Entm’t Inc. Anti-Piracy Dept., Presentation on Anti-Piracy Department, (July 2010).
For a number of years, the film industry has relied on large file sizes as a deterrent to online piracy.\textsuperscript{158} Movies are more cumbersome to pirate because the large files sizes take significantly longer time to download than a file of a musical recording. (see chart of downloads times below)

However, as technology moves forward, the inputs that determine the ultimate time required to download a movie file are changing; download and upload speeds are increasing\textsuperscript{159} while movie file sizes continue to grow.\textsuperscript{160} File sizes for high-definition (HD) video content are nearly twice the size of standard-definition (SD) video files. File sizes for the newly-popular 3D movies are twice the size of HD files. For the average U.S. downloader these varying file sizes mean the difference between a 22-minute download for the SD version of a film and a nearly three-and-a-half hour download of the same movie file in 3D.

<table>
<thead>
<tr>
<th>Average US Download Times\textsuperscript{161}</th>
<th>Average South Korea Download Times</th>
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<tbody>
<tr>
<td>Alice in Wonderland (2010)</td>
<td></td>
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<tr>
<td>File Sizes by Film Format\textsuperscript{162}</td>
<td></td>
</tr>
<tr>
<td>SD: 1.51 GB</td>
<td>10 mbps</td>
</tr>
<tr>
<td>HD: 3.51 GB</td>
<td>44.7 mbps</td>
</tr>
<tr>
<td>3D: 6-8 GB</td>
<td>(35.85)</td>
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<tr>
<td>File Sizes by Film Format\textsuperscript{162}</td>
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<tr>
<td>Alice in Wonderland (2010)</td>
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<tr>
<td>SD: 1.51 GB</td>
<td>22 minutes\textsuperscript{163}</td>
</tr>
<tr>
<td>HD: 3.51 GB</td>
<td>50 minutes</td>
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<tr>
<td>3D: 6-8 GB</td>
<td>100 minutes</td>
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<tr>
<td>Justin Timberlake Musical Recording</td>
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<tr>
<td>File Sizes for 4-minute Recording\textsuperscript{164}</td>
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<td>128 kbps: 3.9 MB</td>
<td>3.27 seconds</td>
</tr>
<tr>
<td>192 kbps: 5.7 MB</td>
<td>&lt;one second</td>
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</table>

However, there are several reasons why the film industry should not bank on large file sizes as a protective measure against piracy. Long wait-times to download content are a double-edged sword. The inconvenience is not limited to illegal downloaders, but burdens paying customers as well. In some cases that burden can be alleviated for legal viewing. For example, digital rental services often employ buffered or “progressive downloads” so that viewers can begin watching the movie right away and the remaining movie file downloads while the consumers watches.\textsuperscript{165} However, file sizes still create real barriers for legal distribution platforms. For example, movie rental service Redbox plans to offer digital


\textsuperscript{159} www.netindex.com

\textsuperscript{160} Interview with Clarissa. See also iTunes store and various file sharing sites.

\textsuperscript{161} Average download speeds from Ookla. Ookla is the global leader in broadband speed testing. They provide anonymous daily index values going back to January of 2008 for every geographic location found at www.netindex.com.

\textsuperscript{162} File sizes in various formats were obtained from the iTunes Store, the author’s iTunes Library, and for the 3D version by looking at average file sizes on file sharing networks.

\textsuperscript{163} Download speeds were calculated by inputting download speed and file size into a publicly available Speed Calculator at http://www.t1shopper.com/tools/calculate/downloadcalculator.php

\textsuperscript{164} File sizes in various formats were obtained from the iTunes Store and the author’s iTunes Library.

\textsuperscript{165} Interview with Clarissa Weirick.
rentals at its kiosks. In discussions with one of the major film studios, however, Redbox said they are not yet willing to offer real-time movie downloads at the kiosks because it would take too long for the files to download and would hinder their goal of reducing transaction times at the kiosks. Alternatively they plan to offer a service where consumers can pay for the digital rental at the kiosk and the file would then be sent to their computer. In so far as long download times hinder legal consumption of video content, it is not in the studios interest to pursue a strategy of increasing file sizes to protect their business.

Regardless of whether studios aim to continue increasing file sizes, the wall of protection will inevitably begin to crumble as new technologies and bandwidths allow for faster uploading and downloading of files. In fact, download speeds outside of the U.S. are much faster than within the U.S. and give an indication of how quickly the wall may crumble. What would take an average U.S. consumer almost an hour to download would take an average South Korean consumer just over ten minutes. If anything, file size should be viewed as having bought the film industry a brief delay before the all-out viral diffusion of their content online. This is a pause that the music industry certainly did not have to prepare themselves for the road ahead. The film industry hopes it has used this extra time wisely, to devise strategies for coping with the digitalization of its business.

**B. Technology Improves Video Products and Commands Premium Price Tag**

Larger file sizes are not the only by-product of evolving film-making and exhibition technologies. New technologies have also given the video entertainment industry an opportunity to offer continually superior viewing experiences that command a premium price tag.

News source, Variety, describes the current changes in video entertainment technology: “For nearly 100 years, film technology changed little beyond adaptations for color and sound. But the digital growth of the past two decades is unprecedented...” As one major film studio exec stated “[m]astering technology has never been more critical to the studios’ business and survival.”

The recent changes began with high-definition (HD) video and now include 3D technologies. HD versions of movies provide an enhanced visual picture and cost the consumer several dollars more to rent or purchase; the current iTunes price differential between a newly-released feature film in standard-definition and high-definition is $5 more. For rentals the price differential is typically $2-3 more.

After HD, 3D became the next big thing in the film industry. Studios and film exhibitors are benefiting from higher ticket prices for 3D theatrical releases. According to new research from BTIG analyst

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166 Id. (Clarissa)
167 Id. (Clarissa)
168 Id. (Clarissa)
170 Id. (quoting Sony Pictures’ Chris Cookson.)
171 iTunes store on December 3, 2010.
173 Id. (Sony)
Richard Greenfield, a 3D movie ticket costs $4-6 more than non-3D tickets. Greenfield’s research estimated that premiums charged for 3D ticket sales are responsible for one third of box office growth in 2010. Greenfield commented that 3D ticket prices "are major price changes for an industry that has historically instituted gradual prices increases."

Film studios also look forward to 3D premiums in home viewing as new 3D TVs hit the market this year. However, the film industry must contend with the fact that technological improvements in home theaters can, in some cases, be a substitute for going to the public theater.

Unfortunately, visual technological improvements have not benefited the audio-only recorded music industry. Audio recordings are available in various sound qualities, but despite these varying qualities at which a musical recording can be delivered, the music industry has not charged incremental prices for higher qualities. Not only should the music business consider charging premiums for higher quality recordings (perhaps attractive only to music aficionados), but they should consider capitalizing on the technological advances in video entertainment. Other non-film media are tapping into 3D technology to create improved fan experiences; the NFL has offered its fans digital 3D broadcasts of professional football games in several U.S. movie theaters. The music industry could similarly benefit from advances in video entertainment if they could transform their audio-only product into one that encompassed a visual component, such as transmitting concerts to movie theaters. The music industry’s potential use of theatrical release is discussed in more detailed in the section of the paper describing content distribution and marketing.

C. Less Redefining of the Product

When recorded music went digital, the entire album-centric business model that the music business lived and died by was dissected. It was a consumer-driven change, but Apple guided the effort and dictated the terms of the transition. Film executives recognize, with some relief, that consumers have less of a desire to manipulate or break up a feature film. A movie is a continuous, linear entertainment experience that consumers have shown no desire to purchase in segments. The consumer’s desire to manipulate the unit of sale in the music business does not carry over to the film industry.

As previously mentioned, Apple has made recent attempts to break apart TV series into downloadable episodes, but has come up against resistance from Hollywood studios to the idea of offering the episodes at the same price as a music download – 99 cents. (could hurt DVD sales – Clarissa) However, it is unlikely that sales of individual TV episodes will wipe out the established business model of delivering TV series via ad-supported broadcasts, and then later as season box sets on DVD. TV broadcasts,

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175 Id. (LA Times citing BTIG)
178 Interview with Clarissa Weirick,
179 Id.
whether live or recorded for later playback, are usually free and more convenient to access than engaging in an online transaction to obtain the same content. The broadcasts are also available earlier than the digital version. In terms of selling season box sets, studios will have to make sure individual episodes are not priced so low as to create a gaping price differential between buying a full season of digitally downloaded episodes and the pre-packaged season on DVD. Also, offering individual episodes fills unmet consumer demand; viewers who missed an episode when it aired on TV, but who are not willing to pay for a season box set to access just one episode would find themselves without a legal alternative for viewing that episode. Again, the point of concern for studios should be pricing the dissected digital content so that it compliments other traditional offerings without cannibalizing those business models.