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**TRENDS IN MULTICHANNEL TV AND
ONLINE VIDEO IN THE UNITED STATES**

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About General Creativity Consulting

In addition to providing research and analysis of evolving market conditions, General Creativity Consulting provides business strategy services to companies in the media, telecommunications, and technology sectors. Services include private corporate briefings and seminars, product design workshops, product roadmap planning, creative process management, and market entry analysis for digital multimedia and entertainment. For more information please visit www.roberttercek.com.

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Editor’s Note about terminology

George Bernard Shaw noted that the English and the Americans are divided by a common language. Perhaps a similar observation could be made about the terminology used to describe the television industry in the US and Canada, French notwithstanding. The editors of this document have made an effort to use terminology that will be understood by English-language speakers of any nation. In general the terminology used will be standard American, with the following exception:

Broadcasting Distribution Undertaking (BDU). In the United States, the business of providing subscription access to a bundle of television channels is commonly referred to as “Multichannel TV” or “Pay TV” (as distinct from Broadcast Television or Free TV). In this document, we will use the Canadian term, Broadcasting Distribution Undertaking or BDU to refer to multichannel television systems.

A combination of new technologies and emerging consumer behaviors has triggered a process that will lead to massive changes to the business model, distribution pattern, and consumption pattern for professionally produced video content. These changes are underway today and they will accelerate during the next five years. This report will examine these trends in the United States, the world's largest market for broadcast and multichannel television.

1. THE DECENTRALIZATION OF MASS MEDIA

During the past fifteen years, the Internet brought tremendous change to several established industries by shifting the value control point from distribution to consumption.

Many traditional businesses were once characterized by centralized control over product supply, market information and pricing data. These businesses have experienced disruption from innovators who devised new ways to enable consumers to search and find alternative products at lower prices on the Internet.

This pattern has been consistent across a variety of industries, ranging from automobile sales to insurance to real estate. In any business where the seller enjoyed asymmetrical access to market data, the Internet now serves as the Great Equalizer, arming consumers with access to better information and a broader array of choices.

The effect on mass media has been especially profound. The combination of the Internet as a two-way delivery path, together with the versatile personal computer which enables consumers to create, manipulate, display and store rich media, has redefined the consumer's relationship with mass media. The two-way nature of the Internet invites users to participate actively in content creation, marketing, promotion and distribution. The computer enables consumers to manipulate and organize professionally published content, sometimes in blithe disregard for the business rules that govern its use.

These new technologies have shifted control away from the companies that publish and distribute commercial content. Previously, content was formatted in channels or bundles that were controlled by professional programming staff; today on the Internet, control has shifted towards the consumers who wish to consume content on the device of their choosing at a time that is convenient. Consumers have adopted tools and technology that enable them to “unbundle” content and repackage it to suit their consumption preferences.

For a generation that grew up with personal computers, the acronym WWW no longer refers to the “World Wide Web”. It stands for “whatever, wherever, whenever.” This attitude represents a fundamental shift in consumer attitudes towards media. No longer

subject to a programmer's control, the consumer has the power to decide when and where to watch the content of her choice.

Historically, the economics of mass media were governed by constraints on access: programs were only available at certain times and in certain channels in order to impose artificial scarcity and thereby maintain premium pricing. But the Internet undoes these constraints. The unbundling process circumvents arbitrary business rules, removes artificial scarcity and makes it easy for consumers to access content on demand. Moreover, the abundance of free content online has caused price erosion, especially for music.

These changes have already transformed several media industries, from print publication to advertising and recorded music.

How might these changes affect television? Consumers empowered by technology will no longer be bound by the schedules and programming plans of the television channels. Television will lose its character as a channel-based medium and instead will resemble a dynamic marketplace where all programs are available on demand.

When he was an executive at UK satellite TV provider BSkyB, Steve Billinger predicted the effects of the Internet on television, saying: "The medium is the market." The Internet has emerged as a ruthlessly efficient content marketplace, greatly diminishing the programmer's ability to package and present scheduled content in a channel. As content channels are replaced by markets for individual programs, longstanding tactics for revenue maximization will become far less effective.

So far, the television industry has been relatively immune to fundamental changes that wreaked havoc upon other media industries. The economics of television remain healthy: in 2011, American broadcasting companies reported their strongest "upfront" sales of advertising in history. Subscription TV services from US BDUs remain popular: nearly 90% of US households subscribe to services from cable multisystem operators (MSOs), direct broadcast satellite (DBS) providers, or IPTV services offered by telephone companies over fiber optic networks. Viewership of television continues to increase.

But television will not remain immune to the influence of the Internet forever.

During the past 18 months a series of technology and business model developments have triggered a sequence of events that will ultimately transform the US television industry.

The transition to online video distribution is now underway. There are many questions yet to be answered: what is the optimal business model for online video? Which companies are best equipped to emerge as the leaders in this new field? What will become of TV channels and broadcast networks? What will happen to BDUs if consumers migrate en masse to online video services?

2. TELEVISION CONSUMPTION IN THE UNITED STATES

Today, the overwhelming majority of Americans subscribe to television services. According to A.C. Nielsen's 2011 "Media Universe" report, 104.7 million of the 115.9M US television households are ready for cable or satellite TV. 55.6 million American homes subscribe to digital cable TV and 34.7M subscribe to satellite TV.

One area of dispute in several recent surveys is the number of households that rely solely upon free over-the-air broadcast television, with estimates ranging from a low of 8% of US households to a high of 15%. In any case, industry analysts agree that approximately 90% of US households get their television from cable, DBS or telco subscription video services.

But consumption patterns have been evolving even within the subscription television domain. American consumers have grown accustomed to taking control of their viewing experience. Beginning with VHS videocassette recorders in the 1980s and, more recently, Digital Video Recorders (DVRs), consumers now have the expectation that they can record TV programs and watch them at a time that is convenient, as well as the ability to pause, rewind and watch again. 43 million American homes have DVRs today: according to Nielsen, 21% of all viewing in DVR homes is DVR playback, accounting for an average of 2 hours and 9 minutes per week of viewing.

Americans do not seem to be in a rush to cancel their BDU subscriptions. Despite rampant speculation about "cord cutting" and the migration to online video services, there is little evidence to demonstrate that BDU subscriber levels have dropped significantly. According to Nielsen: "While the percentage of consumers with broadband but no cable has remained relatively stable, presence of both cable and broadband has increased, indicating that there is limited evidence of cord cutting."

At this stage, the nascent online video services seem to be additive, not a substitute or replacement for BDU services. However, that could change swiftly, especially if subscription prices continue to rise, and if the quality and reliability of online alternatives continue to improve.

At the recent Cable Show in Chicago, hosted by the NCTA (National Cable Television Association), the CEOs of the multichannel BDUs downplayed the growth of online video services. But the traditional TV industry cannot afford to be complacent about online video. It is far too early to dismiss the potential impact of Internet distribution. The technology for Internet video is in a stage of rapid evolution. Every month, more programming choices are added and new software is introduced. And every month, more consumers adopt these new services. It seems inevitable to all but a few die-hard TV veterans that eventually a significant percentage of BDU subscribers will "cut the

cord” or at least “shave” their subscription package as they substitute online video for traditional BDU services.

During the past five years, consumption of online video has grown significantly to tens of millions of consumers. Could further evolution of online video result in a stampede away from traditional BDUs?

As AllThingsD’s [Peter Kafka reports](#): “New research from Nielsen shows that the more Web video you watch, the less time you spend on traditional television. And that effect gets more pronounced if you look at 18 to 34 year olds, the generation that’s grown up with YouTube, iTunes, Netflix, etc. ”

The story of Netflix illustrates the potential for disruption by online alternatives.

3. THE RISE OF NETFLIX: FROM DVD RENTAL TO INSTANT VIEWING

The most dramatic development in Hollywood in 2010 was the rapid growth of subscribers to the Netflix online video service.

In 1997 Netflix began as a flat-rate subscription DVD-by-mail service with two big advantages over the local video rental shop: no late fees and a vast inventory.



A third advantage was the self-service online customer interface that enabled consumers to manage their preferences, browse the big Netflix library and place videos in their personal queue. The company invested heavily in developing a powerful user interface with a predictive recommendation algorithm known as Cinematch. In 2006 Netflix ran a competition for the world's best

recommendation system, offering a \$1 million prize. The result is an attractive, intuitive user interface that makes browsing and discovering videos fun and easy. The system analyses each subscriber's consumption pattern and ratings history and then makes recommendations based on the viewing patterns of other subscribers who demonstrate similar preferences. Recommendations are organized in dynamically-generated categories, sometimes with cheeky labels like "Dark Dysfunctional Family Comedies." No other online video service has yet developed a better way to match customers with movies and TV shows in the library.

The personalized recommendations serve as a subscriber retention mechanism: Netflix subscribers who invest time and effort in "tuning" their preferences and ratings are less likely to switch to a rival service where they will be obligated to duplicate this effort.

Moreover, the vast database of customer viewing preferences confers an advantage on Netflix in content acquisition. Superior knowledge about consumption patterns enables Netflix to arrive at a very accurate estimate of the appeal of certain titles, providing the company a decisive advantage in negotiations with movie studios and TV networks.

In 2008, Netflix introduced a new service concept: instead of mailing DVDs in an envelope via the US postal service, the company offered instant on-demand viewing via Internet streaming. The service is called "Watch Instantly". For a flat monthly fee of \$7.99, consumers can watch unlimited films and TV shows on demand. The economics of this service are vastly superior to postal delivery. Online streaming enables Netflix to phase down the purchase of physical DVDs and to phase out the huge expense of US Postal Service fees ([\\$500 to \\$600M](#) each year, according to CEO Reed Hastings). It

costs [Netflix about five cents](#) to stream a movie, versus approximately 78 cents to mail a DVD by US Post Office.

One “Watch Instantly” feature that delights subscribers is the ability to pause a program on one device and immediately resume watching on another device in another room. This experience comes closest to the “whatever, whenever, wherever” ideal craved by the digital content generation.

To launch the “Watch Instantly” service, Netflix had to tackle three significant challenges:

- 1) building the infrastructure to stream millions of videos simultaneously;
- 2) acquiring the rights to a sufficiently-large library of movies and TV shows to appeal to customers, and
- 3) developing the client-side software to connect the television in the home to the Netflix online service.

Of the three challenges, the acquisition of the streaming rights may have been the biggest. Movie studios are not in the habit of selling their rights on the cheap or in bulk. But in 2008 Netflix succeeded in acquiring the streaming rights to a large catalog of films from Starz, a movie channel that had acquired on-demand rights for its defunct Vongo streaming service. The Starz deal provided Netflix a 2500-title catalog for an estimated \$25 to \$30 million annual fee. This library, along with the subsequent acquisition of rights to Disney and CBS content, gave Netflix a sufficiently large catalog to begin marketing the service aggressively and striking deals to embed the instant viewing client on millions of devices. In retrospect, Starz grossly underestimated the value of the streaming rights. But Netflix’s deal with Starz is up for renewal in the third quarter of 2011: industry watchers expect the renewal price to be [as much as ten times higher](#).

The big content library enabled Netflix to secure bundling deals with the manufacturers of many devices. Today, the Netflix client software is embedded in more than 250 consumer electronics devices, ranging from Internet-enabled TV sets to game consoles like the Sony Playstation 3, to sidecar boxes like Roku and Boxee, in addition to downloadable apps for computers, tablets and smartphones. [One industry analyst](#) estimates that the average American household already has more than 10 devices that are “Netflix ready.” At the January 2011 Consumer Electronics Show in Las Vegas, every major television and device manufacturer showcased “Netflix ready” devices including remote controls with a hardwired “Netflix” button.

The combination of millions of existing subscribers, plus a large library of movies and TV shows available for streaming, and nearly-ubiquitous pre-installed software gave Netflix tremendous momentum in 2010.

In the 18-month period to Q2 2010, Netflix succeeded in migrating more than 60% of their DVD-by-mail subscriber base to their new “Watch Instantly” online streaming video product. By late 2010, Netflix had gained even more momentum, adding nearly 1M new subscribers each month.

In 2010, Netflix added 4.6M new subscribers, and in the first half of 2011 added 3M more. Today, with 23+M subscribers, Netflix has surpassed cable giant Comcast. Television executives openly speculate that Netflix will surpass the 30M subscriber mark in 2011.

According to Internet research firm [Sandvine](#), Netflix streaming video now accounts for more than 20% of total network capacity during peak hours. Sandvine also reports that by March 2011, Netflix had attained 28% penetration into the US market and 11% in Canada.

Wall Street paid close attention to Netflix’s rapid growth. During 2010, the share price skyrocketed. But by the end of 2010, several stock traders switched to short positions, citing several reasons why they expected Netflix to crash: lack of new releases, lack of fresh content, “poor quality” bargain-bin titles in the existing content library, plus the emergence of new competitors, and margin pressure due to rising expense of bandwidth and the likelihood of renewing content licensing deals with studios at much higher prices.

In a widely-discussed incident in December 2010, Whitney Tilson, who manages a New York hedge fund, published [an article](#) explaining the logic behind his short position.

In an unusual move, Netflix CEO Reed Hastings posted a [2000 word rebuttal](#) to Tilson, advising him to cover his short position. Netflix stock defied Tilson’s expectations and continued to soar, while the service added nearly 1 million new subscribers each month in the beginning of 2011. By mid-February 2011, Tilson retreated from his disastrous short position, publishing [a followup article](#) which explained why he felt compelled to revise his investment thesis radically. In sum, many of Tilson’s assumptions about Netflix were wrong.

Tilson is not the only skeptic who was caught off guard. Many observers have speculated about Netflix’s ability to acquire programming. As the first content deals expire in 2011, movie and TV studios are expected to seek significant hikes in licensing fees when the deals are renewed. These deals are a topic of intense interest because they will likely set the template for the entire online video industry.

Netflix has devised a three-part strategy to content acquisition, according to journalist Ryan Lawler who [reports in Gigaom.com](#):

“Already, we can see that Netflix is employing a multi-pronged approach to growing its library:

- It continues to acquire large stores of long-tail catalog content cheaply, relying on its content recommendation engine and vast store of titles to keep subscribers interested in its service.
- At the same time, it is investing in select popular content -- like *Mad Men* and *Glee* -- as a way to attract new, mainstream users to the service.
- Given the increasing cost of licensing shows and movies that have a proven track record, Netflix is also placing bets on projects -- like *House of Cards* -- that aren't yet proven, hoping that it will have a hit.

The way that Netflix has built its content library is [reminiscent of early cable networks](#), which relied almost entirely on syndicated rerun TV shows and older films to appeal to viewers. In recent years, led by the development of original programming on the part of basic cable networks like FX, USA and AMC, we're encountering what could be a golden era of cable TV -- and a sign of things to come for Netflix.

Netflix will likely continue to build a content mix that has some variation of deep long-tail content, newer popular hits and exclusive access to original programming. That last piece is vital, and will be the key to Netflix being able to control its own destiny, rather than relying on others for scripted programming. It will also help set it apart from other me-too streaming services that might appear.”

Netflix has previously managed to fend off threats from established rivals, including the video chain Blockbuster and retail giant Wal*Mart, and it continues to be a well-managed company. For the moment, Netflix is the pacesetter in the online video market.

According to research firm [Sandvine](#), Netflix now accounts for 22.2% of total Internet traffic in the US averaged across all traffic in a 24 hour period, more than peer-to-peer filesharing network BitTorrent (21.6%) or online video site YouTube (9.85%). For the first time, paid content consumption is outpacing free content online.

Regardless of whether or not the company continues to maintain its leading position, Netflix has galvanized the online video marketplace in several ways:

- Millions of consumers have now adopted the new habit of streaming video.
- Millions of consumers have been conditioned to pay a fee to watch rich media content on the Internet.
- Millions of consumers now expect to enjoy instant access to video on tablets, smart phones, laptop computers and other portable devices.

- Millions of versatile devices, ranging from game consoles to set top boxes to internet-enabled TV sets, have been installed in the living room, bringing online entertainment to the living room where it offers an alternative to BDU services.
- Dozens of rival companies, including giants Amazon and YouTube, have introduced competing services that improve upon Netflix.
- Incumbent BDUs have speeded up the deployment of their “TV Everywhere” offerings.
- Motion picture studios have begun to develop an understanding of the online video business model and the appropriate pricing for their content libraries, thereby increasing the likelihood that large catalogs of content will soon be made available.

The starting gun has fired and the online video race has now begun in earnest. At the moment, Netflix is in the lead, but the race will be long and the competition ranges from disruptive startup ventures to Internet giants like Amazon and Google and existing BDUs. The next three sections of this report survey the leading competitors to Netflix.

4. THE COMPETITION FROM ONLINE VIDEO SERVICES

Amazon Instant Video.

In February 2011, Amazon launched a video service to rival Netflix. It was far from perfect: Amazon launched “Instant Video” with far fewer titles, and a less intuitive user interface, and none of the recommendation or queue features that make browsing Netflix so enjoyable. Plus the Amazon service is not yet pre-loaded in hundreds of consumer electronics devices, which makes it somewhat cumbersome to access. But all of these early flaws are in the process of being addressed.



The service has improved rapidly in the months since launch. As the world’s largest retailer of media products, Amazon should face no difficulty obtaining the license to content catalogs from the major movie studios and TV networks at competitive prices. Indeed, the entry of Amazon into the online video market has cheered some movie studios because it creates a competitive bidding environment that will help them negotiate higher licensing fees from Netflix.

The Amazon service can be described as a Netflix clone. But Amazon included one unique feature that is likely to speed their path to customer acquisition: it is offered free of charge to current subscribers of Amazon Prime, the online retail giant’s \$79.00 no-fee shipping club. This is a major benefit that will likely attract millions of existing Amazon Prime members to try Instant Video. Some of them will find they don’t need Netflix or any other online video service.

Google / YouTube.

Google has the potential to disrupt the traditional television business dramatically. The Mountain View, California search giant has assembled a powerful collection of video assets via acquisition, ranging from digital rights management solutions (Widevine) to original content creation studios (Next New Networks) and a Linux-based set-top box manufacturer (SageTV). If Google successfully integrates these online video capabilities with their industry-leading advertising platforms (DoubleClick, InviteMedia and Admeld), the search giant could shift the television industry towards a performance-based real-time advertising business model – a radical departure from the current business model of “upfront” sales against the next season’s programs.

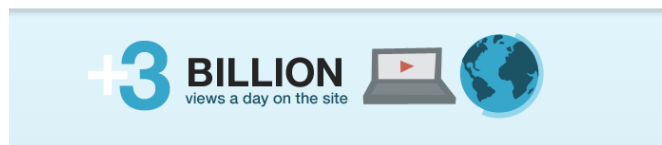
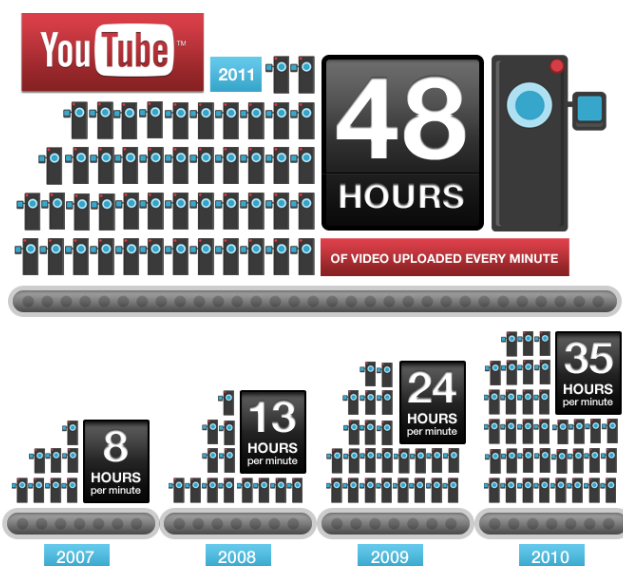
At the center of Google’s video strategy are YouTube and Google TV.



YouTube is the world’s leading destination for streaming video. Launched in 2005 as a video sharing site, it was acquired by Google in 2006 for \$1.65 billion. According to Comscore, YouTube accounts for more viewing time [than the next five video sites combined](#). In May 2011 147 million unique visitors spent an average of 311 minutes on YouTube. The amount of content uploaded to YouTube defies comprehension: the company recently announced that [48 hours of video](#) is uploaded to the site every minute.

At current rate of growth, it is probable that by 2012 more than 1 hour of video will be uploaded to YouTube every second.

In recent years, YouTube has made an effort to overcome its early history as a site that enabled rogues to post copyrighted material. YouTube has made an effort to develop closer commercial ties to major media companies, and since 2008 the site has hosted channels by CBS, MGM and Lions Gate studios, as well as online video services VEVO and Hulu. In January 2010, YouTube introduced a pay-per-view streaming video rental service with more than 6000 titles. However the lingering perception of YouTube’s scofflaw early days continues to cloud YouTube’s relationships with Hollywood and may hamper the process of partnering with some of the major studios.



In 2010 Google introduced Google TV, a software platform for so-called “smart TVs” which connect to the Internet. It brings many aspects of the computer to the television, including the Chrome browser and a keyboard for text input. Built on Google’s Android operating system, the platform enables developers to build TV apps and interactive overlays on top of video programming. At the January 2011 Consumer Electronics Show in Las Vegas, several leading television manufacturers, including Samsung, Sony and Toshiba, showcased new devices that incorporate Google TV.

The response to Google TV from traditional television has been unenthusiastic so far. Many of the established players in the TV industry have refrained from participating with

Google TV, including NBC, ABC and Viacom. In the BDU ecosystem, only Dish Network has partnered to distribute Google TV.

The first version of Google TV was dismissed by critics as a complex product whose appeal is limited to early adopters. However, Google and partners have persisted in advancing the initiative. In June 2011 startup company [Redux announced](#) the development of a new user interface for Google TV that utilizes human curation and social networking to aid browsing and discovery of content on Google TV. Also in June 2011 [Google acquired Sage.TV](#), a maker of set top boxes and DVRs. Industry watchers speculate that the Sage TV acquisition is intended [to optimize Google TV for “place-shifting”](#), enabling consumers to move their media from one device to another, much like Slingbox, or perhaps [to develop middleware](#) that will make it easier for device manufacturers to incorporate Google TV into their next generation hardware.

Hulu

Hulu is an online video service offering a combination of subscription programming and free advertiser-supported fare. Hulu was formed in 2007 as a joint venture between Disney-ABC Television Group (part of the Walt Disney Company), Fox Entertainment (News Corporation) and NBC-Universal (recently acquired by Comcast with previous owner General Electric retaining a stake), with funding by Providence Equity Partners.



Positioned as a rival to Netflix and YouTube, Hulu has pursued a distinctly different strategy:

- Optimized for advertising: Hulu has invested heavily in developing an advanced architecture for targeted online advertising. In May 2011, [Hulu accounted for 28% of all online video advertising](#) in the United States.
- Close partnerships with major broadcasters. Equity investors NBC, ABC and Fox provided Hulu with the advantage of preferred access to popular TV shows. The Hulu service is optimized to serve the interests of traditional television broadcasters by preserving the value of their programming, and therefore it has proven attractive to other major content providers in the TV ecosystem, including Sony Pictures, Warner Brothers, MTV, Lionsgate and Endemol.
- Early access to premium content. Subscribers to the Hulu Plus service (\$9.99 / month) are able to view the entire current season of popular television programs, often as early as the day after the show appears on television. This is a major programming advantage over Netflix which features older content.

Like Netflix and YouTube, Hulu is optimized for delivery to a wide range of home devices, including computers, smart phones, tablets, Blu-Ray Disc players, connected TVs, and game consoles.

In May 2011, 28.5 million unique visitors to Hulu spent an average of 217 minutes watching video on the site. Hulu's audience is about one-fifth the size of YouTube's.

At times, Hulu's freedom to pursue a disruptive path has been constrained by its close ties to the established media companies. In January 2011, rumors emerged about a conflict among Hulu's board of directors. The Wall Street Journal [reported](#) that News Corp and Disney wanted to remove certain shows from the Hulu service, citing fears that the value of the programs in syndication and home video had been diminished. It was also rumored that the media giants wanted to make the shows available on other online platforms, including Netflix and Apple's iTunes.

The episode reveals a contradiction at the heart of established media's approach to the Internet. Even when media giants invest significant funding in digital ventures, they tend to intervene to prevent the startup company from pursuing disruptive strategies that could challenge their traditional video businesses.

Hulu's broadcast partners have imposed new demands on the startup venture. In [the latest content licensing deals](#), Hulu is obligated to require users to verify that they are already subscribers to a traditional cable or satellite BDU before getting access to current TV programs. This authentication requirement will deter some viewers, especially those who seek to "cut the cord" and cancel their cable or satellite subscription; it also conflicts with the business goal of exposing the ad-supported content to the maximum number of viewers. Such constraints do nothing to advance Hulu's business: they reveal the internal conflict among the joint venture partners who seek to preserve their legacy television business while investing in the future.

Hulu operates on thin profit margins. Hulu typically shares 70% of the revenue from advertising with its content partners. From the remaining 30%, Hulu must cover the costs of advertising sales, distribution and platform development costs. Some have questioned the long term viability of this model. Hulu is considered by some observers as a "middleman in an industry that bypasses middlemen." [Critics have observed](#) that TV and movie studios focused on revenue maximization might be better off distributing their content themselves, rather than rely on Hulu.

Hulu CEO Jason Kilar raised eyebrows when he [published a blog post](#) that revealed the company's perspectives on the future of television: some of his views contrasted sharply with those of Hulu's investors. In the blog, Kilar cited three consumer trends that will shape television in the future: the consumer's desire to watch fewer advertisements; the desire to watch a program at a time that is convenient; and the ability for consumers to promote shows they like to their friends and contacts on social network platforms.

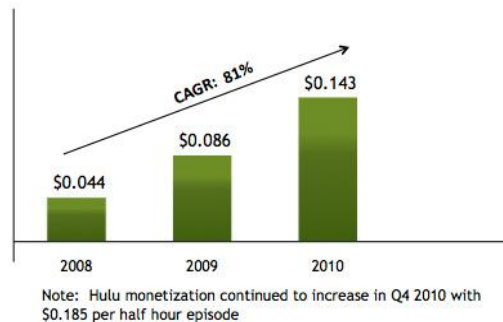
Kilar wrote:

“The above trends are a reality and we believe the wise move is to find ways to exploit these new trends and leverage them to build great businesses. History has shown that incumbents tend to fight trends that challenge established ways and, in the process, lose focus on what matters most: customers. Hulu is not burdened by that legacy.”

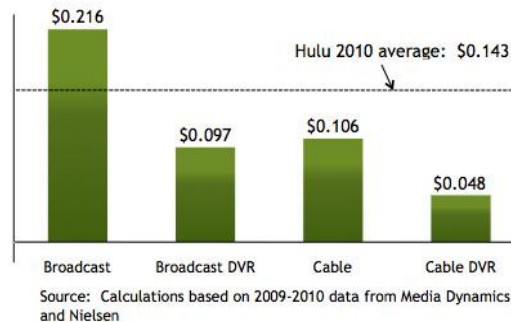
But the new content licensing terms from NBC, Fox and Disney may impose that legacy upon Hulu.

In the blog post, Kilar illustrated the economic potential of online video services, demonstrating how Hulu’s targeted advertising technology could “generate higher advertising returns than any traditional channel can from their advertising service, or any type of content.”

HULU AD REVENUE PER HALF HOUR EPISODE



BROADCAST & CABLE AD REVENUE PER HALF HOUR PRIME TIME EPISODE



Kilar also expressed optimism about an innovative content licensing model for subscription service, Hulu Plus. Kilar wrote, “We believe content owners are in a strong position to make higher returns from TV content distribution in the future than they have historically. If studios and networks license their content to distributors with per-user-per-month economics as the model (as opposed to a fixed fee model), then they will extract a higher portion of the total economics their content will generate. We state this given our belief that the majority of the US population (and a material percent of the globe) will be subscribers to some flavor of digital premium content service going forward.”

The blog post is a calculated effort to persuade content providers to reshape the market for online video. If motion picture studios were to adopt the per-user-per-month licensing scheme proposed by Kilar, it could have a significant impact on market leader Netflix, dramatically raising licensing costs (since Netflix has the largest number of subscribers) and simultaneously eroding the information advantage Netflix gains from its

proprietary customer preference database (because Netflix would be forced to expose per-user consumption to content providers).

The January 2011 acquisition of NBC-Universal by Comcast has also had an impact on Hulu. Comcast was once viewed as a potential acquirer of Hulu, but this outcome is now unlikely following Comcast's consent to take a passive role in the venture as a condition of Federal Communications Commission (FCC) approval of the NBCU acquisition. As the [Los Angeles Times](#) noted:

Indeed, in the consent decree approving the deal, the government said, "Comcast has an incentive to prevent Hulu from becoming an even more attractive avenue for viewing video programming because Hulu would then exert increased competitive pressure on Comcast's cable business."

Hulu was widely viewed as a candidate for an Initial Public Offering, but in late June 2011 rumors surfaced about a possible pre-emptive acquisition bid by an [undisclosed Internet company](#).

Apple iTunes

In 2000, Apple introduced a software program called iTunes to help computer users manage their music files. The software was included free with new Apple computers. In 2003, Apple introduced the iTunes Store, an online retail service integrated into the iTunes application, offering paid downloads of single music tracks.

In October 2005, a new generation of video-capable iPods was introduced. iTunes was upgraded to support video files, and the iTunes Store began to sell a selection of 2000 music videos and TV shows. Television shows were made available 24 hours after airing on broadcast TV. In 2009 Apple introduced high-definition movies and television shows.

The video programs are available on a download basis, for purchase or for rent. Rented videos must be watched within 30 days of purchase, and viewing must be completed within 24 hours once a film begins. These business rules around digital video rentals have gradually been adopted as the industry standard.

Today iTunes serves as a personal media hub, enabling home users to manage music, videos and other multimedia content across the entire range of Apple devices, including desktop computers, laptops, tablets, iPods, iPhones, and the Apple TV device. More than 250 million customers have registered accounts in the iTunes Store.

In June 2011, Apple announced a new service, called iCloud, that will enable consumers to sync their media files across multiple Apple devices.

Apple has developed a streaming radio service, and the Airplay program enables consumers to stream video from their computers and iPods to their TV set via the Apple TV device or an Airport Express wifi hub. Recently there has been some speculation that Apple may introduce a streaming music or video offering via the new iCloud service. But at this point Apple only offers TV shows and movies for sale or rental on a download basis

5. THE COMPETITION FROM TRADITIONAL TELEVISION BDUs

The rapid rise of Netflix in 2010 also compelled the established cable and satellite BDUs to speed the deployment of “TV Everywhere” initiatives that had been in planning and development for several years. The concept of “TV Everywhere” is simple: any subscriber to a BDU service would be able to access the service on any media device in the home, whether a TV, a computer monitor, a tablet or a cell phone.

The concept may be simple but the licensing deal is not. The BDUs have not yet succeeded in convincing all of their content providers to permit them the right to stream their channels over the web. And even if the channels were willing to support TV Everywhere, not all of the rights to all programs are currently available. As a result, the TV Everywhere offerings currently fall short of the full TV experience. Instead of “TV Everywhere”, the current version of the service might be more accurately labeled “Some Channels on Some Tablets.”



Viacom has launched legal battles to prevent Cablevision and Time Warner Cable from displaying Viacom content on the iPad and Android-powered tablets in apps developed by the cable distributors. Viacom has cited the fact that Nielsen ratings do not measure consumption on tablet computers as a major factor in their complaint; but industry watcher Todd Spangler argues in [Multichannel News](#) that Viacom is “missing the forest for the trees.” Spangler writes:

Instead of trying to wring additional fees out of affiliates on a technicality of what does or doesn’t constitute a “television service,” Viacom should be *embracing* these services that are going to be a major way TV is delivered (via iPads, Android devices, connected TVs and Blu-Ray players, PlayStations, Xbox 360s, etc.).

The TV Everywhere offerings vary by company. Some, like Time Warner Cable's iPad application, provide a selection of TV channels streaming live in-pattern. The consumer can flip between the channels, but cannot download, bookmark, pause or watch a program on demand. Others, like Comcast's Xfinity iPad app, offer a combination of live channels plus a selection of individual programs available on demand.

In general, the TV Everywhere services share a common characteristic: they attempt to replicate the current television offering. Although this approach may offer advantages by simplifying licensing and operations, it seems to defy consumer expectations. Consumers have demonstrated that they turn to the Internet for a different entertainment experience from their BDU service. The most successful Internet video services enable consumers to select from a broad catalog of individual programs available for instant on-demand viewing. So far no company has succeeded on the Internet by offering a programmed selection of programs running in-pattern like a traditional TV channel.

It is too early to determine which package will appeal more to consumers: programs presented in live TV channels or a la carte access to a broad catalog of on-demand programs. Results in the marketplace will soon reveal the winning strategy.

In some cases, the licensing agreements signed by BDUs do not permit them to make any changes to the presentation of the channels. Should these BDUs wish to provide a la carte access to individual shows as part of their TV Everywhere initiatives, it may require a new round of negotiations, which would enable content providers like Viacom to extract even more.

At present, the TV Everywhere apps are only made available to consumers who already pay for subscription TV. Authentication is required. No BDU has yet decided to open up their TV Everywhere service to new customers outside of their footprint. However, that might change soon, and when it does, the results could be dramatic (see next section).

Authentication is a way to preserve the existing subscription television business while satisfying the desire of consumers to access video on other devices. Do online video services really threaten traditional BDUs?

For operators of cable networks, the advent of online video is a mixed blessing. Although Internet video presents a competitive threat to the BDUs' video business, it also drives consumer adoption of broadband via cable modem, which is a highly profitable product. As Comcast CEO Brian Roberts notes,

“Netflix needs one of the strongest broadband [connections](#) you can get...We're seeing a surge in our broadband usage. We sold more broadband last year than we did the year before and yet it's a 10 year old product. We sold more broadband last year, every quarter than Verizon, AT&T, and Qwest combined.”

In addition to the cable television companies, both the satellite TV providers and the telco IPTV video services have developed their own “TV Everywhere” products and strategies.

Recently, some television industry [analysts have speculated](#) about the secret plans of satellite pioneer Charlie Ergen. This Echostar co-founder has made a series of acquisitions in recent months that suggest that he may be in the process of assembling all of the necessary components to launch a powerful rival to Netflix and possibly a wireless broadband network.

In February, Echostar Corporation acquired Hughes Communications. Echostar’s subsidiary Dish Network also acquired two defunct satellite companies, TerreSky and DBSM (former a unit of ICO): both companies have large spectrum holdings and Ergen may be able to persuade the FCC to permit more flexible use of the spectrum for services that do not require a satellite antenna. These acquisitions give the company the opportunity to launch nationwide fixed and mobile broadband services in addition to satellite TV.



Dish also owns the set top box maker Sling Media and video distribution technology provider MoveNetworks. Dish also recently acquired the bankrupt Blockbuster video store chain with more than 2000 retail locations and, less widely known, the right to stream a library of more than 20,000 motion pictures on demand over the Internet. Also, as a result of a lawsuit settlement, Dish also has access to the entire patent portfolio of DVR pioneer TiVo and Burst.com.

The assets acquired by Ergen could be used in combination to offer a new Blockbuster video rental service delivered on demand over the internet or integrated into to the Linux-based Sling devices and Dish Network set top boxes. With millions of Sling and Dish set top boxes already installed in homes, Ergen’s online video service would enjoy a big advantage in customer acquisition. Dish is already marketing a version of this hardware / software configuration to second and third tier BDUs to enable a white-label version of a TV Everywhere service.

6. THE COMPETITION FROM MEDIA COMPANIES

For the studios and networks that produce and publish video content, the advent of online services presents both a challenge and an opportunity.

The opportunity is promising. The proliferation of innovative online video services from newcomers such as Netflix as well as established BDUs has increased the negotiating leverage of the major media companies. As competing distribution platforms vie for access to programming, the studios are able to extract ever-greater revenue from licensing deals. As [Viacom CEO Phillipe Dauman said](#), “For the content owners, there’s never been a better time.”

However, television studios also face a significant problem: the collapse of the home video business. The rise of Netflix has coincided with the demise of the highly profitable DVD business. Some speculate that Netflix accelerated this decline. As consumers shift away from purchasing or renting fixed media towards consuming video streamed or downloaded from the Internet, the once-reliable revenue stream from DVD sales has dwindled. Wholesale [revenue from DVD sales fell](#) 44% from 7.97 billion in 2009 to \$4.47B in 2010.

The erosion of the DVD business has created a big hole in the studios’ balance sheets: they desperately need online video to succeed in order to replace lost revenue from home video.

The television studios and networks that create content are also keenly aware that the Internet presents opportunities to bypass the traditional distributors. The major television broadcasters and most cable TV channels now offer a direct to consumer (D2C) offering on the Internet, as well as a broad range of video apps for smart phones and tablet computers. This is primarily an area of experimentation. It may not generate significant revenue today, but the studios are determined to develop the expertise to engage consumers directly. These skills may prove essential in the event that the industry fragments.

However, the TV studios are unlikely to launch a D2C service that would jeopardize the [\\$75 billion revenue stream](#) from the BDU industry. The conflicting strategies and limitations imposed upon Hulu by the studios in the joint venture illustrate the dilemmas faced by every content company who seeks to launch a D2C service while preserving a legacy television content licensing business that depends upon distribution partners.

7. PRICE INCREASES IN BDU SERVICES WILL ACCELERATE THE MIGRATION TO ONLINE “OVER THE TOP” SERVICES

In every marketplace, there is natural friction between buyer and seller. The subscription television business is no exception.

Subscription television has always been characterized by an uneasy alliance between the distributors who license content and the studios that provide it. The BDU platform operators depend upon the content providers for the programming that keeps customers satisfied. In turn, the content providers depend upon the BDUs for recurring revenue that is vital to funding production. This virtuous cycle works until it is time to renegotiate the affiliate fees and channel placement.

Until recently the negotiation for TV programming occurred behind closed doors. However, in 2010, as broadcast networks increased their demands for affiliate distribution fees, a series of acrimonious disputes between MSOs and broadcasters culminated in an ugly feud between Cablevision and Fox Network that played out in the headlines of the morning newspapers. The Fox Network disappeared temporarily from the Cablevision system, depriving East Coast viewers of popular sports events and [attracting the scrutiny of Congress](#).

Broadcasters, determined to obtain billions of new fees from BDUs in exchange for the right to distribute their broadcast TV signal, have taken a rigid stance towards their BDU affiliates.

In this context, the direct-to-consumer offerings by ABC, CBS and other networks could be perceived as a tool designed to increase negotiation leverage. But the content owners will play the D2C card with caution: their fate is deeply intertwined with the BDUs. No channel would dare to pull out of the subscription television ecosystem altogether because the nascent online video services are currently incapable of replacing the reliable revenue stream from the BDUs.

The stakes are high. US broadcast networks seek \$3.5 billion in fees from BDUs in exchange for the right to retransmit their free-to-air signal on subscription platforms.

The fees paid for the retransmission rights will eventually be passed along to subscribers. But every price hike increases consumer dissatisfaction with subscription television, and thereby elevates the risk that more consumers will cancel their subscription and switch to online or free-TV.

In June 2011, [Leichtman Research Group](#) released a report entitled “Cable DBS and Telcos: Competing for Customers 2011” which predicts that 9% of households with income below \$30,000 are likely to disconnect and not subscribe to cable or satellite TV.

The [mean reported monthly spending on multi-channel video services is \\$73.35](#), an increase of 3% over 2010.

BDUs are keenly aware of the risk that a segment of their customers will reject any further price increases. As Time Warner Cable CEO Glenn Britt recently noted at the NCTA Cable Show, “There is a growing underclass of consumers who can’t afford [BDU services] and they want it. It would serve us well to worry about that group. It would behoove us all to have smaller packages.” The unspoken implication of Britt’s remark is the possibility that some consumers, priced out of subscription television, may switch to sub-\$10 monthly subscription to an online video service.

8. THE “WORLD WAR THREE” SCENARIO: ALL AGAINST ALL

Behind this tense standoff lies the potential for an even more explosive scenario. [Laura Martin](#), Senior Analyst for Entertainment, Cable & Media at market research firm Needham, refers to this scenario as “[World War III](#)”: a self-destructive melee in which every participant in the subscription TV ecosystem launches a competing direct-to-consumer online video offering, slashing prices in order to attract customers.

The WWII scenario would spell the end of the peaceful co-existence of cable operators. Until now, US cable network operators have been respectful of each other’s geographic territory. They have generally refrained from poaching each other’s customers. “Overbuilding” of duplicate cable infrastructure has been minimal.

So far, the TV Everywhere offerings from cable BDUs have followed suit: these services are available only to existing customers via an authentication process.

But there is no technological or geographical barrier that would prevent a cable BDU from making their Internet video services available to subscribers outside of their cable footprint. On the contrary, once the software has been developed, there is almost no marginal cost to expanding the service nationwide.

That’s why some industry experts speculate that it is only a matter of time before TV Everywhere services are sold nationwide to any customer with an Internet connection. The result would be a mad scramble for customers, with cable MSOs competing against not only telco IPTV and satellite, but also against the online video services from other cable companies, as well as a host of innovative offerings from startup companies and online content aggregators.

The first strike could come from a telco, not a cable network operator. The IPTV services built by AT&T and Verizon were designed for deployment over any broadband infrastructure. As reported in [Screen Plays magazine on February 14, 2011](#):

“In another interview Eric Bruno, vice president of product management for Verizon Telecom, acknowledged his company was seriously considering making its FiOS TV service available as a subscription service to broadband users nationwide, regardless of who their local service provider might be. “That is absolutely one of the things we’re looking at,” Bruno said, affirming similar comments made last year by Terry Denson, Verizon’s vice president of programming and marketing.

Such a ubiquitous OTT-offered version of FiOS TV would be an extension of the capabilities Verizon has implemented in support of its Flex View TV Everywhere service, which, in November, began delivering on-demand premium content to devices other than the PC, starting with

Android-based handhelds and tablets. "When we built the technology platform," Bruno said, "we built it so it could provide service nationally."

That national reach begins with providing in-territory FiOS TV customers access to their content wherever they are, which means, Bruno said, "we have to be broadband agnostic, and we are." A next step would be to extend availability of Flex View to Verizon broadband customers who don't have fiber connections. "And then, as we look into the future, we still have a decision to make as to whether we want to make that available to everybody on a more over-the-top basis," he said. "That's still under evaluation."

But Bruno made clear that Verizon will do what it thinks makes most sense in the increasingly competitive OTT environment. "As we work through making sure we can deliver in the highest possible fidelity [over broadband networks], the market is going to go where the market is going to go," he said. "I think we're already beginning to see a proliferation of over-the-top. From a Verizon perspective, we recognize that it's coming."

The Screen Plays article continues to note that TV Everywhere services developed by Time Warner Cable and Comcast have also been designed as "network agnostic" products that could be offered nationwide. Indeed, Comcast already offers its Xfinity2Go video product in markets where it operates a WiMAX network on the Clearwire infrastructure.

Although Needham's "World War Three" scenario may seem unlikely today, it doesn't require a great deal of imagination to envision how swiftly the current uneasy balance within today's television ecosystem will be upset when the competitive playing field shifts to the Internet.

If high prices and economic distress continue to cause increasing numbers of consumers to turn away from their traditional BDUs, the MSOs and other BDUs will have no choice but to chase their former subscribers onto the Internet. And this will bring them into direct competition with each other as well as their content providers and the new disruptors from the Internet.

9. THE NEAR TERM THREAT FROM DISRUPTORS

The major media companies and the BDUs enjoy advantages of size and scale as well as a vast installed base of more than 100M homes, but their transition to the Internet may be hampered by business issues, such as the lack of interoperable industry standard solutions for digital rights management (DRM) and the clearance of all rights for all programs.

That delay offers an opportunity for newcomers to disrupt the marketplace.

At the June 2011 CTIA Summer Meeting, I had the opportunity to speak with several executives who supervise the development of Internet video products for telecommunications companies, broadcast networks and cable channels.

One telecom executive told me: “There was a feeling in the air at the Cable Show of ‘We’ve got to do something now. We’ve got to do it quickly. We don’t want to be like the music industry’.”

The executives at the event cited several issues that could impede their entry into the online video marketplace:

- The slow process of establishing and implementing interoperable industry standards for digital rights management across multiple devices.
- The time-consuming process of clearing the rights to every program in the library.
- The lack of commonly accepted audience measurement across all devices and platforms for advertising-supported content.
- Conflicting corporate agendas in legacy business dealings.

Another telecom executive said: “Consumers are clearly saying they want their video on TV and the PC and the phone. It’s clearly technically possible. The problem is the licensing. It takes way too long. These industries will be eroded very rapidly unless we make the content available.”

Content owners are in no rush to migrate to a platform that has not yet demonstrated superior economics and where the risks of commoditization are high. Until the studios are confident that their content will be secure and that the rights of all royalty and residual participants will be honored, they will not permit distributors to replicate the entire BDU experience on digital platforms. Periodically, TV shows are pulled off of digital platforms until licensing issues can be resolved.

Recent history suggests that the goal of preserving the traditional television economics on the Internet may not be feasible.

The Internet's impact on retail, advertising, classified ads, brokerage and a host of other industries illustrates how unlikely this outcome is. Few incumbent companies have survived the transition to the Internet without making drastic changes to their economic model.

The primary challenge to incumbent companies in the face of sudden disruption is that they are unable to adopt a new business model while they are still dependent upon the old model to fund operations.

For this reason the author of this report believes that the strategy of delay and withholding content is unlikely to produce the winning combination of content, software and user experience.

While the incumbents bicker, a generation of newcomers unburdened by the baggage of a legacy business model have begun to make progress. Because they have no vested interest in the old order, the newcomers feel free to demolish it. In the Darwinian struggle as an old business migrates to a new platform, disruption is a survival tactic: business model disruption might inflict fatal damage on incumbents and thereby enable newcomers to reconfigure the industry in an entirely new way that reinforces their strengths.

Every month, new companies emerge with a product designed to test the boundaries of legal and technical feasibility. Each time they are thwarted, a new company is formed to improve upon the design of the predecessors. This process occurred in music, in the progression from Napster to Gnutella to BitTorrent. And now something similar is happening to television networks.

In November 2010, a startup venture called [FilmOn](#) introduced live streaming television in high definition over broadband to computers and the iPad, no TV subscription required. FilmOn did not have the consent of the television networks to transmit their signal on the Internet. By November 29, [the New York Southern District Court issued a temporary restraining order](#) at the request of the major broadcast networks, shutting the FilmOn service down.

Two months later, at the Consumer Electronics Show in Las Vegas in January 2011, another startup called [Ivi.tv introduced the concept of a "virtual cable network"](#), enabling consumers to access a package of local television stations and a few cable channels using nothing more than a web browser and a computer. Again, the Ivi service was launched without the consent of the TV broadcast networks whose signal was included in the service. And again, the broadcasters sued. By mid February a US District Court ruling put a stop to the Ivi.tv transmission of the networks' broadcast TV signal.

But that did not end the race to become the first "virtual cable network." It merely began the cat-and-mouse process of testing the legal definition of a cable network. Each

courtroom fight brings greater clarity to the question: “What is cable TV service in a broadband world?”

According to [Adweek](#), public interest groups, including Public Knowledge, Electronic Frontier Foundation, Media Access Project and Open Technology Initiative, weighed in on behalf of Ivi.tv, filing an amicus brief that declared “A preliminary injunction against ivi would not only deprive consumers and the competitive landscape of a new entrant, but it also would chill other potential startups and their investors from entering the market.”

Ivi and FilmOn have vowed to return with a new configuration that will pass the legal test.

In the meantime, a new player named Bamboom has launched a [service to distribute broadcast TV over IP](#). Bamboom uses one tiny antenna for each customer, relaying the TV signal to the cloud where the customer can view it on any device equipped with a Web browser. This approach, designed to comply with the precedent set by Cablevision in a previous legal battle over remote DVRs that was settled by the Supreme Court, will be tested in another court battle soon.

Yet another startup company, Zediva, seeking to offer “virtual video rentals”, claims to have crafted its offer to comply with the same court ruling in the Cablevision DVR case. The [Motion Picture Association of America \(MPAA\) has filed suit on](#) behalf of the movie studios to stop Zediva from renting videos online and streaming them to consumers. Hearings are set to begin in late July 2011.

The stakes are high. If one startup venture succeeds, it could pave the way to a proliferation of cloud-based video rental services and virtual cable networks. [Such services could then be acquired or replicated](#) by telcos, computer makers, internet companies, game console manufacturers and all of the other companies who want to break the logjam of negotiations with content companies

10. THE NEW VALUE BUNDLE

The history of electronic mass media in the 20th Century is a story of packaging and bundling. Bundling multiple titles into a single package yields superior economics. Music albums offer fatter margins than singles. Broadcast networks created economies of scale that dwarfed local TV stations.

And the cable TV “bundle” generated the greatest economics of all.

For fifty years, cable television operators have optimized the bundling of content. As cable pioneer John Malone has observed, no one has ever devised a better profit maximization strategy for content than cable TV. The “cable bundle” consists of a proprietary set top box that decodes the encrypted video signal sent through the network. By owning both the network and the terminal, the network operator exercises complete control over the end-to-end delivery of the programming. Dominating their private infrastructure, the cable operators extract a percentage of all revenue generated within this private infrastructure, including advertising, TV commerce, Video On Demand fees, and subscription revenue from basic and premium tiers of programming. Adding more channels and more services to the bundle has increased revenues for all ecosystem participants for decades.

Previously the value control points in the cable ecosystem were: the **network**, the **set top box**, the **on screen guide** and the **programming**. All under the control of the cable system operators. Direct broadcast satellite (DBS) companies essentially replicated this cable-centric value bundle, but substituted the satellite signal and radio-frequency spectrum for the copper cable network .

In the transition to digital networks, each of the value control points from the BDU ecosystem is subject to evolutionary pressure by innovative technologies and fierce competition. It is highly unlikely that the “cable bundle” will survive the transition to the Internet.

- The **proprietary set top box** has not evolved as swiftly as devices from the computer industry, and today it can be supplanted by versatile sidecar boxes like Roku, Boxee, Vudu and Apple TV, available off the shelf for less than \$100. Smart Televisions also now connect directly to the web, bypassing the cable box to retrieve interactive applications and online video directly. The most popular alternatives to the proprietary BDU set top box are the seventh-generation game consoles from Sony, Microsoft and Nintendo which offer direct access to multimedia content and online video services.
- The outdated TV **screen guide** has been replaced by the Web browser and a variety of innovative video discovery apps like Frequency.com, as well as social media recommendations from friends and content curators.

- Commodity broadband services available from multiple providers may supplant the **proprietary video distribution network**.
- And gradually, the television **programming** is in the process of being unbundled and made available on a per title basis from a variety of outlets.

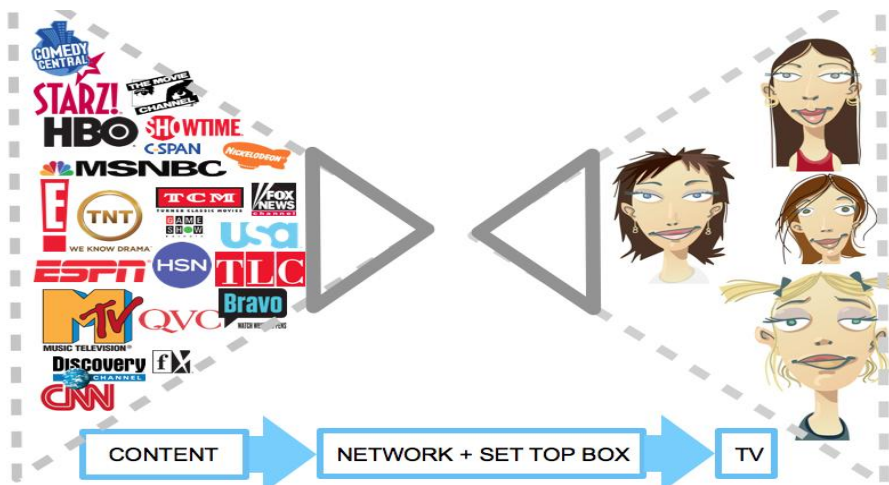
The Internet is in the process of unbundling cable TV. It has shifted the value control point away from the distributors and towards the consumer. What's at stake? The \$345 billion television ecosystem.

Some pundits and bloggers have described a nightmare scenario in which the unbundling process will drive all content to commodity pricing, thereby destroying the economics of filmed entertainment. But the author of this report believes that the history of electronic media suggests the opposite scenario is more plausible: every successive wave of innovation, from radio to television to cable to the VCR to satellite to DVD, has yielded ever-greater economics even as programming diversity and consumer choice have expanded. More access leads to more content and more consumption.

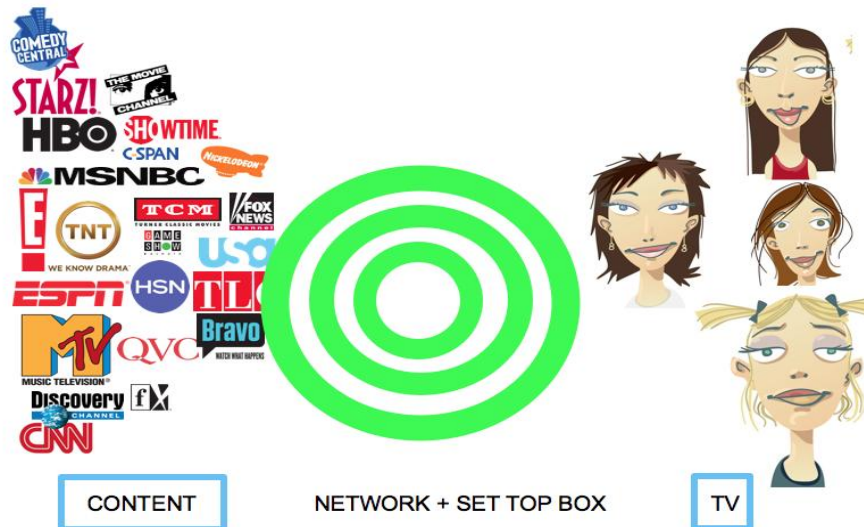
However, the companies that are leading the transition to digital media have redesigned the playing field to their advantage. We're no longer playing by the rules of mass media. Expertise in old media does not confer a significant advantage in this new environment.

Several Internet companies are working to reconstruct the value bundle that surrounds video content. But they have redefined the value control points. The new value bundle is shaped by technologies, expertise and capabilities that differ radically from those that defined the old cable TV value bundle.

The old value bundle as defined by cable television reinforced the value control point controlled by the distributor positioned right in the middle of the value chain, between the content and the consumer, like this:



As “unbundling” occurs, the content is disaggregated from end-to-end distribution control of the proprietary network. Consumers have the option to access video via a variety of devices, not just the closed set top box. Video services are distributed across a variety of broadband networks instead of being bound to a single closed ecosystem. This creates a void in the center of the value chain, depicted by the green circle below:



The new value bundle defined by Internet technologies fills the void in the green circle. It consists of four separate competencies: a **platform** for content distribution and monetization; tools for media **creation** and management; tools for communication and content **discovery**; and new ways to **consume** content.

The Four Components of the New Value Bundle:

1. MONETIZATION PLATFORM

- Infrastructure for cloud services
- Monetization via:
 - ecommerce / online storefront
 - online advertising and behavior targeting
 - subscription services
 - proprietary digital currency

2. TOOLS FOR CONTENT CREATION

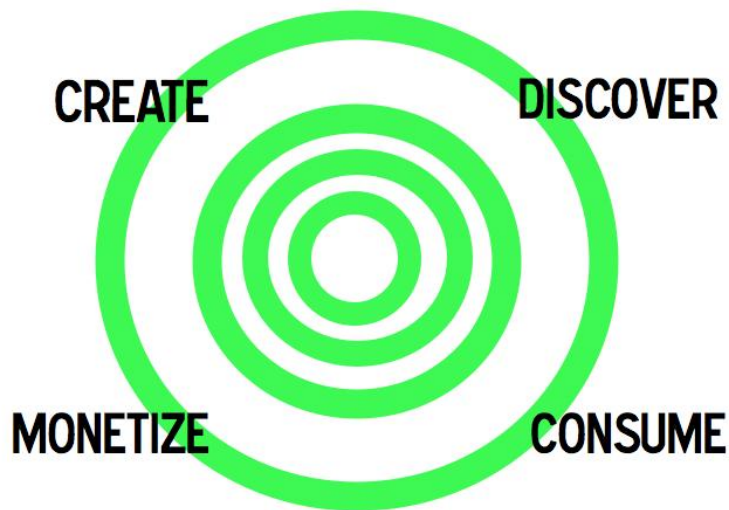
- Software developer program
 - Toolkits and APIs for app developers
 - Developer conferences and support
 - Monetization path for developers
- Media management tools
- Content creation tools

3. TOOLS FOR BROWSING AND DISCOVERY

- Browser & Search function
- Content discovery apps
- Aggregation and curation
- Social media referrals
- Communication tools
- Recommendation engines

4. NEW MODES OF CONSUMPTION

- Versatile media devices
- Client side Operating System
- Browser
- Proprietary media players
- DRM



The diagrams and lists on the following four pages provide perspective on how each of the leading Intrenet companies approaches the challenge of assembling a new value bundle.

APPLE'S VALUE BUNDLE



1. APPLE MONETIZATION PLATFORM

iAd advertising platform.
iTunes Store
App Store
Game Center
iCloud service architecture / Mobile Me

2. APPLE TOOLS FOR CONTENT CREATION

Professional developer program
Professional media tools: Final Cut Pro, Aperture
Consumer media tools: iPhoto, iMovie, GarageBand, iWeb

3. APPLE TOOLS FOR BROWSING AND DISCOVERY

Browser: Safari
Social discovery: Ping
Social media: partnership with Twitter
Messaging and communications: FaceTime, MMS, Mail

4. APPLE'S NEW MODES OF CONSUMPTION

Operating systems: OSX and iOS
Versatile devices: desktop and laptop computers, iPad, iPod, iPhone, and Apple TV
QuickTime video player

GOOGLE'S VALUE BUNDLE:



1. GOOGLE'S MONETIZATION PLATFORM

DoubleClick advertising platform.

InviteMedia Buyer Side platform; AdMeld Supply Side platform

Android Market

2. GOOGLE'S TOOLS FOR CONTENT CREATION

Professional developer program

Consumer media tools: Google Apps, Picasa

3. GOOGLE'S TOOLS FOR BROWSING AND DISCOVERY

Browser: Chrome

Social discovery: Google Reader

Social media: Google+

Messaging and communications: Gmail

4. GOOGLE'S NEW MODES OF CONSUMPTION

Operating systems: Android and Chrome OS

Versatile devices: Android powered Smart Phones and Tablets, ChromeBook

Google TV interactive TV platform / Sage TV acquisition

FACEBOOK'S VALUE BUNDLE:



1. FACEBOOK'S MONETIZATION PLATFORM

Display advertising (via Microsoft partnership)

Social Advertising

Facebook points (virtual currency)

2. FACEBOOK'S TOOLS FOR CONTENT CREATION

Professional developer program

Consumer media tools: photos

3. FACEBOOK'S TOOLS FOR BROWSING AND DISCOVERY

Browser: partnership with RockMelt

Social discovery: Facebook News Feed, Facebook Like button

Social media: Facebook friends

Messaging and communications: Facebook messages

4. FACEBOOK'S NEW MODES OF CONSUMPTION

Operating systems: none

Versatile devices: none

Music on Facebook (not yet announced)

Video rentals (trial)

AMAZON'S VALUE BUNDLE:



1. AMAZON'S MONETIZATION PLATFORM

Amazon Store
Amazon Prime (free shipping club)
Amazon App store
Infrastructure: Amazon web services.
Amazon Associates affiliate program

2. AMAZON'S TOOLS FOR CONTENT CREATION

Professional developer program for Amazon Web Services
Amazon S3 for storage

3. AMAZON'S TOOLS FOR BROWSING AND DISCOVERY

Browser: none
Social discovery: Amazon Lists, Author Pages
Social media: Amazon community discussions, groups

4. AMAZON'S NEW MODES OF CONSUMPTION

Operating systems: none
Versatile devices: Amazon Kindle / TouchCo Acquisition

The preceding diagrams offer a simplified way to illustrate the core competencies of the future of media distribution.

It is clear that some companies, like Facebook and Amazon, are stronger in certain areas and are weak in others. But new alliances and capabilities are announced daily, and these reshape the balance. For example, Google was previously considered weak in social networking but on June 28, 2011, launched a new initiative called Google Plus which is intended to shore up the deficit in social media discovery and recommendation. Likewise, Facebook lacked deep expertise in filmed entertainment, but in June 2011 announced that Reed Hastings, the CEO of Netflix, would join the board of directors.

What matters most is that all four of these companies are alike in some important ways. They differ from traditional media distribution entities because they do not own or control physical network infrastructure; they are global in size and scope; they tend to operate open application development environments or platforms with open APIs for developers; and they do not depend upon content as their primary revenue driver. Indeed in the case of Google and Amazon Instant Video, the video content is generally free because these companies monetize elsewhere.

This represents a radical departure from the value bundle of the past. This is a highly volatile space in the midst of a major transition, so some of these examples may be in flux. In time, different capabilities may emerge as more important than others, and new services may be introduced.

One thing that makes the new value bundle different from the old bundle is that it is dynamic and ever-changing, unlike the static nature of the government-sanctioned cable television monopolies. All four companies have emerged as innovation platforms, ceaselessly innovating and competing to introduce new capabilities and new features.

11. HARDWARE: WHAT COMES NEXT AFTER THE TV SET?

Glenn Britt, CEO of Time Warner Cable, recently said, “There is no such thing as television anymore. There is just a display device.”

Britt’s simple statement masks a profoundly disconcerting message for traditional motion picture studios and BDUs: their product no longer exists inside a sheltered ecosystem. In the new digital ecosystem, video content must compete for consumer attention against games, music, streaming radio, email, instant messaging, chat, social networking, news feeds, articles, photos, dating sites and consumer generated media of all sorts.

Traditional TV programs did not evolve to exist in a multimedia environment, but instead were designed to compete solely within the context of a television channel. The cacophony of the new media market will present a new challenge to television producers as their brands must compete in a more cluttered arena against a broad range of multimedia entertainment options without the marketing power and visibility provided by a channel.

Content designed for the digital future must be designed for consumption across multiple platforms. The following list includes some examples of the versatile display devices of the new ecosystem.

Connected TVs and Smart Television Sets

The concept of the “Smart TV” is simple: the combination of a computer and television. But the execution of this concept has a long and complex history, with mixed results, beginning with Amiga computers in the 1980s. The “Internet on TV” concept was pioneered in the late 1990s without great commercial success. It was reintroduced by manufacturers in the late 2000s as a response to the surge in online video consumption on non-TV devices.

Several leading TV manufacturers have introduced a version of Smart TV. One approach is to embed the computer inside the television set. The other approach is to add a small sidecar or set top box with the computer power and network connection, turning the TV set into a display monitor.

The biggest question about Smart TVs pertains to consumer adoption: will consumers chose to interact with the Internet from a couch using a wireless keyboard or mouse? Smart TV systems include special remote controls and keyboards, as well as specialized Graphical User Interfaces designed for a user seated approximately ten feet from the television screen.

Below is a representative sample of some of the television sets with integrated computing power:

Yahoo Connected TV is currently on an installed base of 8 million TV sets. Yahoo TV widgets are available on televisions made by Sony, Vizio, Samsung and LG. Yahoo expects to ship on 16 million TV sets this year. Yahoo is promoting a concept called “[Broadcast Interactivity](#)” that will synchronize data overlays with the TV signal, enabling programmer to add enhancements to shows and allowing advertisers to push out detailed information about products and a call to action for audiences.

Google TV, a software platform for interactive television based on the Android operating system, was co-developed by Google, Intel, Sony and Logitech. It runs the Linux version of Google’s Chrome browser. Several device manufacturers, including Sony, Toshiba, Vizio demonstrated devices running Google TV at the Consumer Electronics Show in Las Vegas, Nevada in January 2011. Google has indicated that Android Apps for Google TV will be available for download from the Android Marketplace as early as Summer 2011.

Other Smart TV devices. Several consumer electronics companies have introduced their own versions of smart TV. These manufacturers include Samsung, LG Electronics, and Philips.

Set Top Boxes from BDUs

Compared to the computer industry and the consumer electronics manufacturers, BDUs have been slow to deploy innovative equipment in the home. Most of the legacy TV set top boxes provided by satellite and cable companies are not optimized for the Internet: many of them lack internet connections, have closed architectures, weak microprocessors and do not support applications developed by third party developers. These legacy set top boxes are a source of consumer complaint: consumers find them cumbersome because they take up too much room, they are not as versatile as computer-based devices, and they waste a remarkable amount of energy in comparison to other electric devices in the home. The [New York Times reports](#) that one high definition set top box with an integrated digital video recorder uses more energy than a 21-cubic-foot refrigerator. By one [estimate](#), the energy consumed by the nation’s 160M set top boxes exceeds the entire power consumption of the State of Maryland. Two thirds of this energy is wasted because the device runs at full power when no one is at home. Energy-efficient alternatives exist, but BDUs have not installed them.

These legacy set top boxes now face competition from a variety of versatile digital devices:

Game Consoles

The current seventh-generation video game consoles are highly versatile computing platforms capable of displaying a wide range of multimedia entertainment, including IPTV and streaming video as well as rich 3D graphics. Game consoles have emerged as the most popular devices for viewing online video services such as Netflix.

Microsoft Xbox 360 offers playback of Windows Media (including high definition 1080p video) as well as video encoded in the MPEG2, MPEG4 ASP and H.264 formats. The Xbox Live Marketplace offers high definition video rental of movies and TV shows for download to the Xbox 360 internal hard drive. In 2008, the Xbox was the first game console to include support for Netflix. But Microsoft's strategy appears to be industry-neutral, working with both the online video distributors and the traditional BDUs. Microsoft has partnered with several IPTV providers, including BT in the United Kingdom, Telus in Canada and AT&T UVerse in the US, to make their video services available on the Xbox 360 in their respective markets. According to market research from Sandvine, the Xbox is the second-most popular viewing platform for Netflix, after the Sony Playstation 3. In June 2011, Microsoft announced that live television would be made available on the Xbox 360, but [only to those households who are already subscribers to BDU services from cable or satellite](#); in other words, instead of using the Internet to disrupt the BDU system, Microsoft's Xbox 360 will integrate into the existing BDU ecosystem as a substitute for a traditional set top box. More than 55 million units of Xbox 360 have been sold worldwide, with more than 25 million sold in the United States.

Sony Playstation 3 (PS3) supports high definition 1080p video playback from its internal hard drive and its integrated Blu-Ray Disc player (for games, Blu-Ray Discs, DVDs, CDs and other optical media), as well as streaming video. The Sony Playstation Store offers high definition video rentals of movies, TV shows, trailers for download to the PS3's HDD. The PS3 supports stereoscopic 3D gaming and movie playback. Netflix has been compatible with the Sony Playstation 3 since 2009, and according to Sandvine, the Playstation now accounts for 30% of all viewing of Netflix, by far the most popular platform for viewing the video service. The PlayStation also supports Wal*Mart's VUDU video rental service and MLB.tv. In Europe, the UK and Australia/NZ the Playstation supports a variety of regional online video services. As of March 29, 2011, more than 50 million Playstation units were in use worldwide, with more than 15 million sold in the United States.

Nintendo Wii is the best selling seventh generation game console in the world. Wii does not support DVD or BluRay optical discs but it supports Netflix and other online video services. More than 86 million units have shipped worldwide since the Wii was introduced in 2006, and more than 35 million have been sold in the United States.

Other Set Top Boxes

During the past five years, US consumers have enjoyed the benefits of tremendous innovation in set top boxes from independent companies seeking to provide an alternative to the BDU set top box.

Today, consumers can purchase versatile devices that play a range of media, including instant access to internet video services. Such devices are smaller than traditional BDU set top boxes (some are just slightly larger than a hockey puck), silent, and energy-efficient. Recent improvements in set up and ease of use have made these devices easy and quick to install by consumers at home.

A natural alliance has emerged between the distributors of online video and the makers of new set top boxes, beginning with the Roku device which was originally planned internally by Netflix but was later spun out as a standalone venture.

Netflix is pre-installed on several such devices, including the following: Boxee, Logitech Revue Buddy Box, Popbox, Roku, [Orb TV](#), as well as hard drive media players from Seagate and Western Digital. Increasingly, Hulu, YouTube and Amazon Watch Instantly are also embedded on such devices.

Home Theater PC

HTPC is a convergence device that brings full-power computer to the television. Unlike a typical computer (which is usually connected to an LCD display or a CRT display) the HTPC is optimized for connection to a television via HDMI, DVI, component video or composite video output. The user interface is designed for interaction from ten feet away via remote control. HTPC can run Media Center software for the display of recorded, stored and streaming video. There are many versions of HTPCs available today, including Apple OSX devices (like the Mac Mini) and Microsoft Windows Media PC, as well as GNU/ Linux devices running a variety of Linux based software.

XBMC

An open source initiative called XBMC (previously “Xbox Media Center”) was introduced by the XBMC Foundation in 2010. Originally developed as a media center application for Microsoft’s Xbox, it has now been extended to Apple iOS, Linux, Apple OSX, and Microsoft Windows. XBMC requires a 3D-capable graphic processor, a significantly greater processing requirement than the embedded systems in televisions. The source code from XBMC has been used by other device makers (such as Boxee and 9x9 Player) for the graphical user interface and media player.

DVD and BluRay players

As consumers shift away from fixed media players towards devices that are optimized for streaming video, several manufacturers of Blu-Ray Disc players have introduced “internet ready” devices. In a surprising twist, manufacturers have found that [promoting a device as “Netflix ready” actually spurs sales of fixed media players.](#)

Netflix is pre-installed on some or all of the Blu-Ray Disc players from the following manufacturers: Insignia, LG Electronics, Panasonic, Philips, Sharp, Samsung, Sony, and Vizio.

Tablets and Smart Phones

Streaming video services like Netflix and Hulu are also available for mobile devices such as Apple iPhone and smart phones running the Android operating system from Google, as well as tablet computers such as the Apple iPad.