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Britt Technology Impact Series

VIDEO



Winning the Battle for
People, Platforms & Profits

An Overview
2008-2009

TUCK SCHOOL OF BUSINESS AT DARTMOUTH



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CENTER FOR
DIGITAL STRATEGIES



Welcome to our overview of the Britt Technology Impact Series (BTIS) on this year's theme of **Video: Winning the Battle for People, Platforms and Profits**. The series is a set of events offered by the Center for Digital Strategies for the benefit of the students, faculty, staff, and other members of the Tuck School of Business and broader Dartmouth community. The series focuses on a particular theme each year, illuminating the impact of a technology on an industry, on consumers, and on business practices. The goal is to bring the business and personal implications of a set of technologies to life in a dynamic way.

The series is an expansion of the center's longstanding Tech@Tuck series and is made possible by a generous donation from Tuck and Dartmouth alum Glenn Britt, CEO and Chairman of Time Warner Cable. In giving the gift, Glenn stated, "The role of business people is to understand the possibilities created by new technologies, recognize unmet consumer or business needs they could fulfill, and determine if the new technology and the customer needs can be put together in a business model that makes sense." Our mutual hope is that each year this series will highlight relevant aspects of a set of technologies, examine evolving business models and illustrate how consumers' needs are being met.

We hosted a great group of executives at Tuck in this inaugural 2008-09 year of BTIS. Each of them brought his or her own perspective to the community. We hope that this summary of key learnings from the year's events provides you with a better understanding of the dynamics and challenges facing the media and entertainment industry and the changes in how we as consumers are using video in our lives.

Hans Brechbühl
Executive Director
Center for Digital Strategies

June 2009



Pulse of the industry

Americans are passionate about watching video content in all forms whether it's a blockbuster film, dramatic series, documentary, sitcom, or funny clip on YouTube.com.

So, when it comes to the business of video, who is winning the battle for people, platforms and profits?

We posed this question to the country's top entertainment executives—leaders crafting and testing new business models to serve what appears to be an insatiable consumer demand for dynamic video content.

“People would like to get their video content whenever they want it on any device they happen to choose and wherever they happen to be,” said Glenn Britt, Chairman and CEO of Time Warner Cable. “This may have sounded aspirational 20 years ago, but the reality is that technology makes it available today.”

The video value chain is expanding as new screens are added. Sixty years ago, broadcast television networks served as the primary mass-market distribution channel. Most families had one television set and watched shows together. Today, consumers access video on three screens: television, computer, and mobile phones. Content is distributed via broadcast, satellite, and cable companies. Online, or so-called “over-the-top” distribution, Wi-Fi, DVDs, video-on-demand (VOD) and a variety of subscription services provided by telecommunications companies complete the current mix.

To take the pulse of the media, and entertainment industry, we divided our research, presentations, and interviews into three themes: production, distribution, and monetization.

Key Factors Influencing the Video Production Model

- Tight production budgets due, in part, to soft advertising revenues, are affecting the type of content produced.
- Broadcast and cable networks are saving millions of dollars a year by producing more cost-effective reality and contest shows.
- Production companies are producing video content in ways that allow it to be re-purposed for viewing on multiple platforms.
- Video production costs have plummeted as the price of high-definition camcorders have fallen to around \$3,000.
- Affordable and easy-to-use video editing software has made it easy to produce broadcast-quality video. Apple's Final Cut Pro® software suite allows individuals and small production companies to compete against much bigger companies for business.
- Salaries and fees paid to writers, producers, directors, casts, and crews are falling in response to a weak advertising market. Even unionized television and film production crews are making wage concessions to remain employed.
- Thousands of websites and online distribution channels are hungry for video content, creating new opportunities for producers.

Shifting production models

The business model for producing video has changed dramatically over the past 20 years. In the past, only trained professionals with expensive equipment wrote and produced video content for mass distribution.

The advent of affordable video camcorders and simple-to-use editing software has leveled the production playing field, opening the door for non-professionals to produce video content for online global distribution via sites like Google's YouTube.com. As a result, 13 hours worth of video clips are uploaded to YouTube.com every minute of the day and night, according to a company executive.

With so much low-cost video out there, media and entertainment industry executives wonder whether popular but expensive one-hour television programs such as *Law & Order* and *Lost* can survive the current economic downturn. One episode of these serial dramas can cost as much as \$3 million.

In contrast, it costs around \$500,000 to produce an episode of a contest or reality show, such as *American Idol* and *Dancing with the Stars*. Cable programs, especially cooking, home and garden, and personal makeover programs generally cost under \$100,000 per episode and attract viewers and advertisers.

User-generated content (UGC) is the newest source of video content. Although Americans are addicted to YouTube.com, (downloading 16.8 billion clips in April 2009), most clips resemble the modern equivalent of a home movie and can't compete with professionally-produced video content. "I think what you are going to find is that consumers have been spoiled by high production value content and it will be a challenge to wean people off what they have been watching for years. . . \$200 million movies and \$3 million TV shows," said Blair Westlake, Corporate VP, Microsoft Media and Entertainment Group.



Although user-generated content is entertaining, Microsoft's research has shown that consumers will download and watch about 45 minutes of professionally-produced content at a sitting, but only watch about two minutes of user-generated content during that same time.

With more than one billion personal computers and 20 million Microsoft Windows mobile devices in use worldwide, Westlake, who tracks the evolution of user-generated content said, "the public is demanding—and producing—more video content every day."

The public is demanding—and producing—more video content every day.

Thousands of individuals and small production companies are producing cost-effective creative content for networks, broadcast, cable, and online distribution. For independent film and television producers, the barrier to entry began to fall in 1996 with the introduction of the Panasonic mini-DV camera. Weighing less than five pounds, the camera, which cost about \$4,000, shot video in a format mimicking the look of film. In 2003, another barrier to low-cost production fell after JVC launched its high-definition digital camera for the consumer market.

Amateur and professional producers are now embracing the Flip Video camcorder. Released in 2007, the basic Flip camera, which sells for under \$200, features an interface to quickly download files for editing on a computer (some Flip cameras shoot in a high-definition format). Seizing an opportunity to expand its product line while encouraging consumers to transmit more video over the internet, Cisco Systems acquired Pure Digital Technologies, the maker of the Flip, for \$590 million in the first quarter of 2009.

As camera prices plummeted, so did the price of editing software. In 1989, Avid Technology's digital, non-linear editing system for film and video was introduced and remained the dominant editing platform for 10 years.

The 1999 introduction of Apple's Final Cut Pro® software dramatically changed the game. Before Final Cut, editing was done by professionals, not amateurs. Today, anyone with basic computer skills can edit video.

Although the equipment needed to produce high-quality video is becoming more affordable every year, producers are still challenged by tightening production budgets. Cable and broadcast outlets purchase many programs from independent producers. But, when advertising revenues soften, production budgets are trimmed. For example, five years ago, an independent production company could demand \$500,000 to \$750,000 to write and produce a one-hour (actually 44-minute) documentary commissioned by a cable network such as Discovery Health Channel. Today, cable networks are paying \$350,000 to \$500,000 for a similar documentary.

Labor costs also factor heavily into the production model. Crews are smaller. Running lean means networks and independent production companies seek out "predators," people trained to do it all—write, produce, direct, shoot and edit.

The equipment needed to produce high-quality video is becoming more affordable.

Under protest, entertainment industry unions are being pushed to accept reduced budgets. For example, Dartmouth alum Paul Lazarus said that when he reported to the set a few months ago to direct a big-budget situation comedy, the producer declared the shooting day would be

cut from 12 hours to 11 to avoid paying overtime for the crew. Despite union rules to the contrary, Lazarus said the crew accepted the schedule. (It is important to note that unionized productions can be up to four times more expensive than non-union ones.)

Despite tight budgets, companies taking full advantage of new equipment and technology are thriving. One example is San Francisco-based Current Media, co-founded by former Vice President Al Gore and Dartmouth alum Joel Hyatt, CEO. The seven-year-old cable and online network relies on a small team of primarily young reporters with digital video cameras to file reports from around the world. Amateur writers and producers also submit stories and produce commercials.





Current's dynamic, multimedia format is designed to attract younger viewers who tend to watch television while working on their computers. "Our whole notion is to empower users and viewers to create content, to be able to tell their stories and share them with their generational cohorts and be able to define what is news and information," said Hyatt. He points out that Current is profitable because it relies on a proven business model based on two revenue streams—advertising dollars and fees from cable subscribers.

Although Current, which launched in 2007, is one of America's newest cable networks, it has won numerous investigative reporting awards and attracted 60 million subscribers worldwide. Funded by private investors, Current has about 400 employees. It is also the youngest TV network to win an Emmy award, according to Hyatt.

While Current distributes content online and on television, there are hundreds of small, web-centric video production companies attracting investors and viewers. One high-profile startup, Next New Networks, was founded by a group of former television executives and raised \$13 million from venture capitalists in 2008. The company produces original short-form programs on topics ranging from do-it-yourself fashion design and muscle cars to \$99 music videos. Tuck alum Jed Simmons, co-founder and chief operating officer, said Next New Networks has produced about 4,500 original programs. Most clips are short—less than seven minutes long and cost under \$2,000 to produce. Based on the popularity and positive response to the network's shorter features, Simmons said the company is looking into producing more long-form programs. Although the company has yet to turn a profit, it is making new distribution deals every month. And, thanks to low-cost programming and virtually unlimited internet bandwidth, Next New Networks is able to compete with giants Viacom, NBC Universal, CNN, and Disney.

Disney has long been regarded as a leader in producing high-quality video content. Rich Ross, president of Disney Channels Worldwide, is credited with creating the *High School Musical* franchise. *High School Musical* was made for television and attracted more than 250 million viewers worldwide. *High School Musical 3*, released in theaters, grossed more than \$250 million dollars at the box office. "We were able to make two movies on a budget that made sense for our business," he explained. "I really thought that there was

a trilogy here and the only way to get the talent was at a bigger budget, which necessitated a theatrical release."

One secret to Disney's success is to repurpose most of what it produces in multiple languages and formats. Ross said Disney Channels operates in 32 languages and in about 160 countries. "You can see *High School Musical* as a movie or you can see it as an ice show," he explained. "It's being able to take your brands and have them extended over all these different experiences that connect with kids and families."

Disney and other companies are focusing their efforts on the next frontier in video production: short-form, bite-sized clips designed for web and mobile distribution. Producers are busy creating *webisodes* for online viewing and *mobisodes* for new, mobile phone applications, according to Theresa Page, SVP, Mobile Entertainment for GMR Marketing.

No matter what form it takes, one factor remains constant: television is still the best medium for storytelling, according to Mark Williams, associate professor of film and media studies at Dartmouth College. "Part of what television can do, for example, that motion pictures cannot, is to develop a story and a series of characters over time," he said. "That's an extraordinary dramatic capacity. The theater can't do that. The movies can't do that. Only television can do that."

It's being able to take your brands and have them extended over all these different experiences that connect with kids and families.



Key Factors Influencing Video Distribution

- The number of screens for video consumption is expanding. Current screens include the computer, (desktop and laptop), television, mobile phone and other handheld devices such as Apple's iPod®.
- Cisco Systems, a major provider of internet infrastructure, predicts the demand for distributing video over the internet will grow at 400% a year. Affordable bandwidth enables and encourages the online distribution of video content.
- Digital video recorders (DVRs), such as TiVo®, allow consumers to record programs for later viewing as well as order pay-per-view movies and television shows. The ability to “time-shift” programs can increase viewership.
- The cable industry serves about 65.5 million subscribers in the U.S. There are about 30 million satellite subscribers in the U.S. About three million customers buy television subscription services through telephone companies, according to 2008 industry reports.
- Adults (18 to 54 years old) watch an average of five hours of traditional television a day, according to a recent survey released by the Nielsen Company.
- Ninety-three percent of television is watched live. Most consumers record a second show while watching their favorite program in real time.
- Rather than cutting the cord by cancelling cable or satellite subscriptions, multi-channel providers, as they are known, actually added 1.7 million subscribers in 2008, according to Leichtman Research Group.

*satellite cable
broadcast
wireless online
DVDs internet*

At this point, the platforms of video distribution include: private and public internet, satellite, via 2G-4G wireless networks through technologies like the mobile version of WiMax, over-the-top, and cable (linear and video-on-demand). Content is also distributed in the form of DVDs through postal services as well as purchased from big box stores like Best Buy and Blockbuster.

Companies distributing video content operate in a robust and extremely competitive environment. Everyone is trying to figure out the best business model for distributing video content. “The day is eventually going to come when you are going to say ‘I don’t need to watch this on cable because I have it on the internet and I’ve connected my PC to the TV and I can watch it as

AVERAGE DAILY MINUTES OF MEDIA CONSUMPTION: SPRING AND FALL 2008

Media	Total Adults	18-24	25-34	35-44	45-54	55-64	65+
Live TV	309.1	209.9	256.0	230.4	335.7	346.1	420.5
Playback TV via TiVo/DVR	14.6	17.2	1.9	17.2	19.4	8.5	7.2
DVD or VCR	22.9	34.0	35.4	27.4	20.6	4.0	11.4
Console Games	6.5	25.9	13.9	4.9	3.0	1.2	0.3
Television Total	353.1	287.0	321.2	279.9	378.7	369.7	439.4
Computer Video	2.4	5.5	4.3	2.6	2.0	1.2	0.2

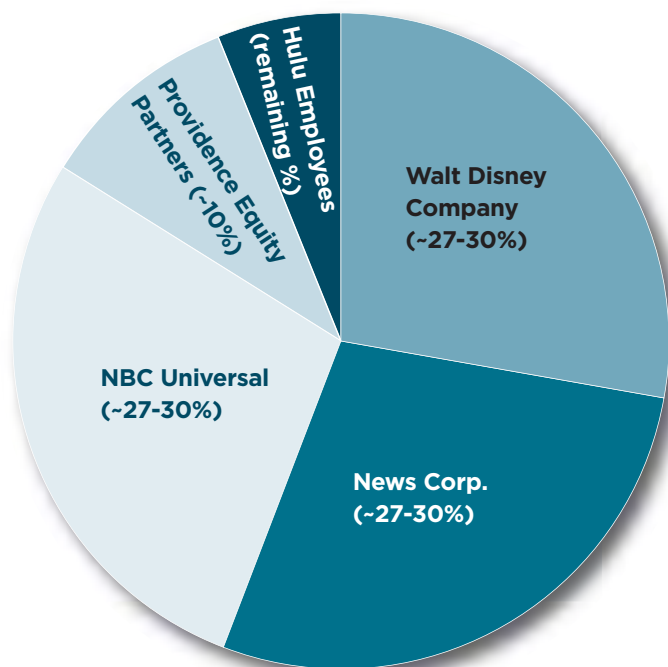
if I'm getting it from my cable company' We're not there yet, but it's not far away," said James McQuivey, Ph.D., vice president and principal at Forrester Research.

McQuivey cautioned that as content providers move forward they must be aware that "the service becomes more important than the hardware," because every year, consumers are offered new ways to access high-quality content. "A year from now, it will be a real question of . . . do we spend the money on a DVD or Blu-Ray or do we just watch the 720P stream offered by Netflix or Hulu or any number of other services."

In response to the growing amount of free video content available online, major companies like AT&T, Comcast and Time Warner Cable are developing new and aggressive strategies to retain and increase their customer base. The concept, called "authentication," is based on providing subscribers with a password so they can log in to access video content on multiple devices without paying more for it. Comcast and AT&T have already launched programs that allow customers to watch programs on a variety of devices in and outside the home.

The service becomes more important than the hardware.

Who Owns Hulu?



To maintain its competitive edge, Time Warner is rolling out an initiative dubbed "TV Everywhere." Time Warner executives tested the concept in Milwaukee with positive results, according to press reports.

Other entertainment industry giants are seeking ways to keep viewers from drifting away. Hulu, which began as a joint venture between News Corp. and NBC Universal in 2007, acquired a prestigious new partner in May 2009. The Walt Disney Company provided an undisclosed amount of cash and about \$25 million for marketing to showcase its content on the site, which usually ranks among the top five destinations for online video, according to comScore's Video Metrix service.

The expanded Hulu venture brings together three of the biggest cable and broadcast networks on one powerful online platform. Each company holds a 27.5% stake in the venture, which is believed to be marginally profitable according to industry insiders. The remaining equity will be divided between the Hulu staff and Providence Equity Partners, a private equity firm that reportedly invested \$100 million in the venture. While the venture gives Hulu exclusive access to the extensive library of television shows and films owned by the companies involved, it is important to note that the Hulu deal excludes Disney's most popular cable franchises, including *Hannah Montana* and *High School Musical*. Keeping those shows off Hulu, but available on Disney-owned websites and on DVD, is

expected to appease cable operators who don't want premium shows streamed online. Hulu partners can also limit access to their most popular shows by not posting full episodes online.

An experiment that is going to be part of a new, powerful distribution channel.

"I would characterize Hulu today as an experiment that is going to be part of a new, powerful distribution channel," said Jonathan Hurd, Director, Altman, Vilandrie & Co.

In 2008, Hulu reportedly attracted about \$65 million in ad revenues from major companies such as McDonald's and Best Buy. Ad revenues are projected to reach \$120 million in 2009, according to *Screen Digest* columnist Arash Amel. Hulu's modest economic success is in contrast with YouTube.com, which is reportedly losing about \$500 million a year. Industry analysts believe the losses are attributed to several factors including the high-

cost of providing all that free bandwidth to users and early content sharing and ad revenue deals.

When it comes to creating a profitable and sustainable distribution model, industry experts point to HBO. HBO, believed to be the most profitable premium network in the world, has about 40 million subscribers in the U.S. and millions more abroad. The network is devoted to protecting its branded content while expanding distribution channels, according to Bob Zitter, EVP, Technology and CTO for HBO. Similar to efforts by Time Warner and Comcast, Zitter said HBO is exploring ways for viewers to watch HBO shows on a variety of screens because they “want to watch their programming on demand . . . whatever device—is secondary.”

“I think one of the biggest threats to HBO and other companies like it is disaggregation of content,” Zitter explained. “We need to make sure that whenever someone selects an HBO show, they know it’s an HBO show, that it’s not just *Entourage*, it’s HBO’s *Entourage* . . . so when they make that decision

The HBO brand name is never disaggregated from a directory or any title of our programming.

to pay that bill to their satellite company or some other company, they know that it’s coming from HBO and they’ll want to continue to want to subscribe to HBO.”

He pointed out the company works “with all the technology companies and the various distribution channels and platforms to make sure that the HBO brand name is never disaggregated from a directory or any title of our programming.”

When telecommunications companies like AT&T and Verizon aggressively compete with cable and satellite providers to provide television programming to customers, it’s good for HBO. “Competition is good, so having other competitors in the marketplace is good,” Zitter said.

He pointed out that the cable companies have a distinct advantage over the phone companies. “In the U.S., for the phone companies, this is their fourth attempt to get into the video business,” explained Zitter. He said the telcos are motivated to get into the television business because they are losing telephone customers to the cable companies. (Verizon, for instance, has invested about \$15 billion in its FIOS television service). “The cable (TV) companies have already taken 20% of their customers for telephone service and the cable companies didn’t have to invest a nickel to get into the telephone business,” Zitter commented.

In addition to accessing video content via cable and satellite distribution, millions of Americans buy programs via video-on-demand (VOD). Much of the hardware and software that makes this content available via set-top boxes is created by companies like SeaChange International. Yvette Kanouff, chief strategy officer of SeaChange, said, “I think what’s really most important is not just looking at hardware. We are over 60% software and that software [allows us] to understand the consumer and build creative applications.” The company’s patented technology can limit consumers’ ability to fast-forward through advertisements which is a very attractive feature for advertisers.

Despite the ability to record programs and watch them at a later time, Kanouff said she believes live television will always be one of the strongest links in the video supply chain. “There will always be broadcast because when the Super Bowl is on, we’re going to want to watch it live . . . and there’s something to be said for the social aspect of bringing people together to watch something, but the time concept of linear television is absolutely shifting,” she pointed out. “We’ve been raised in an environment of understanding linear programming so we’ve structured our life around it, but as soon as that requirement goes away, I think we’ll watch content when we want to.”

When asked about the overall impact of online video on competing distribution channels, Kanouff said she believes the internet is a great tool for personalizing video content on other distribution platforms. She predicts that viewers will soon be able to customize their video content by using the internet as a companion to watching programs on their television set. About 70%



The time concept of linear television is absolutely shifting.



of Current TV's viewers are working on their computers at the same time, according to that company's research.

"The internet is not an enemy of cable or vice versa," commented Kanouff. "They complement each other. Do I think that the internet will take over cable? Absolutely not."

Making sure consumers have the infrastructure needed to watch video online falls to Tony Bates, senior vice president and general manager of Cisco's Service Provider Group. Demand for moving video files across the internet is growing at a rate of about 400% a year, according to Bates.

Although Bates believes that television will remain the primary and most popular distribution channel, he predicts that as bandwidth increases consumers will be able to enjoy a higher quality, more "immersive" video experience. However, the infrastructure has to be upgraded to meet increased demand. "I think we're going to have to see more investment into fiber, deeper into the network, maybe all the way to the home. It's very exciting for companies like Cisco, but of course, the business model needs to be there."

While Cisco is a leader in providing the bandwidth required to watch video online, providing the ability to search through billions of video clips is what inspires Suranga Chandratillake, founder and CEO of London-based blinkx. "What we do is spider the entire web looking for video, whether it's CNN, YouTube, MTV, or HBO," he explained. "When we find those videos, we analyze them very deeply. We use speech recognition and video analysis... our computers watch and listen to every word and frame. The user can type in a search for whatever you're looking for and we find it for you wherever it lives on the web," he explained, adding that some clips contain short video ads or a small banner.

The internet is not an enemy of cable or vice versa.



Chandratillake said he believes one challenge to improving online distribution is closing the gap between the internet and television sets. "We all have homes with these amazing large screen TVs and we all have homes with internet connections, yet the two don't talk to each other yet."

While traditional television watching still dominates the American home, Disney's Rich Ross predicts younger viewers will be the first to embrace the mobile phone as their personal video screen because it is affordable, portable and private. "It's mobile, so it allows kids to take it into their room, which is important," said Ross. "I think in five years there's no doubt that a kid will look at their phone as their TV and not need a TV in their room."

Figuring out the right distribution outlet for content falls to executives like Tuck alum Carrie Ferman, director of strategy for NBC Universal. "As content creators, what we need to do more effectively as platforms open up is use that as an opportunity to reformat content we have or create new content that's appropriate for the platform," she explained. "The idea of taking what we have now, in and of itself, and forcing it on to other platforms has not been effective in the past."

She also cautions that, "we are never going to stop consumers from going where they want to go [to watch video]. You have to accept that consumers will get [video] content when and where they want it."

Industry executives said they are constantly challenged to make the right match between video content and the best distribution platform. The good news is that the number of screens available to watch video content continues to expand to meet consumer demand.

Consumers will get [video] content when and where they want it.

Key Factors Influencing the Monetization of Video Content

- Television viewers are exposed to about an hour a day of ads and promos.
- U.S. consumer spending on home entertainment fell 5.7% in 2008 to \$22.4 billion, due in part to a 6.3% decline in DVD sales direct to consumers, according to a report by Digital Entertainment Group. Analysts believe consumers are leaning away from owning content, preferring to watch it online for free or pay a modest charge to download individual programs.
- Online video advertising is expected to increase to \$850 million in 2009, up from \$587 million in 2008. Sites with professionally-produced content, such as Hulu, are one of the main drivers for projected 45% growth this year, according to analysts at eMarketer.
- Viewers watching a 30-minute television program online will be shown about two minutes of commercials. In contrast, a 30-minute television show on TV features about eight minutes of commercials. Industry analysts said the disparity reflects the reluctance of advertisers to spend money on online distribution channels.
- Online video sales (fees paid for downloads) were estimated at \$250 million in 2008, representing less than one percent of all home entertainment purchases, according to industry reports. Pay-per-view content is extremely affordable with most films costing less than \$5.
- DVD shipments to retailers slipped 30% in the fourth quarter of 2008. This is creating concern for studios since DVD sales historically represent up to 70% of a film's profit, according to a report by Barclays Capital.
- Profits increase when content creators re-purpose and re-license content for distribution on multiple platforms.
- Only 1% of adults view recent TV shows online daily and 8% weekly. A recent survey by the Leichtman Research Group found that only 3% of adults with subscription television service would disconnect their service to only watch video online.

Who has found the right business model?

Media and entertainment executives visiting Tuck were challenged to describe the ways big and small companies are attempting to monetize video content. So far, the tried and true model of inserting ads into television programs and before, during, or after online video content is still the most lucrative model.

They pointed out that television networks rely on a dual revenue stream, making about half their money from affiliate fees paid by local stations and the balance from advertising revenues. Many online video companies like Next New Networks rely on a single source of advertising revenue shared between the parties involved in a content deal.

Company executives said one key to making more money from advertisers is to better match content with consumers. "You're going to see television changing more toward smart ads, targeted ads, interesting ads . . . if you make the ads relevant, the idea is that people won't want to fast forward through them," explained SeaChange International's chief strategy officer Yvette Kanouff.

Google, best known for its pioneering search engine technology is responding to a growing demand from advertisers to better track how consumers respond to ads. The company now offers Google TV Ads. Using a simple, online mechanism based on an auction model similar to the way Google sells keywords, advertisers and individuals can upload and place commercials on a variety of IPTV television channels. Google Ads provides a mechanism for advertisers to better match their products and services to specific viewers. Then, a sophisticated interface allows advertisers to track response to their ads.





Certainly the world of television and the world of internet are coming together.

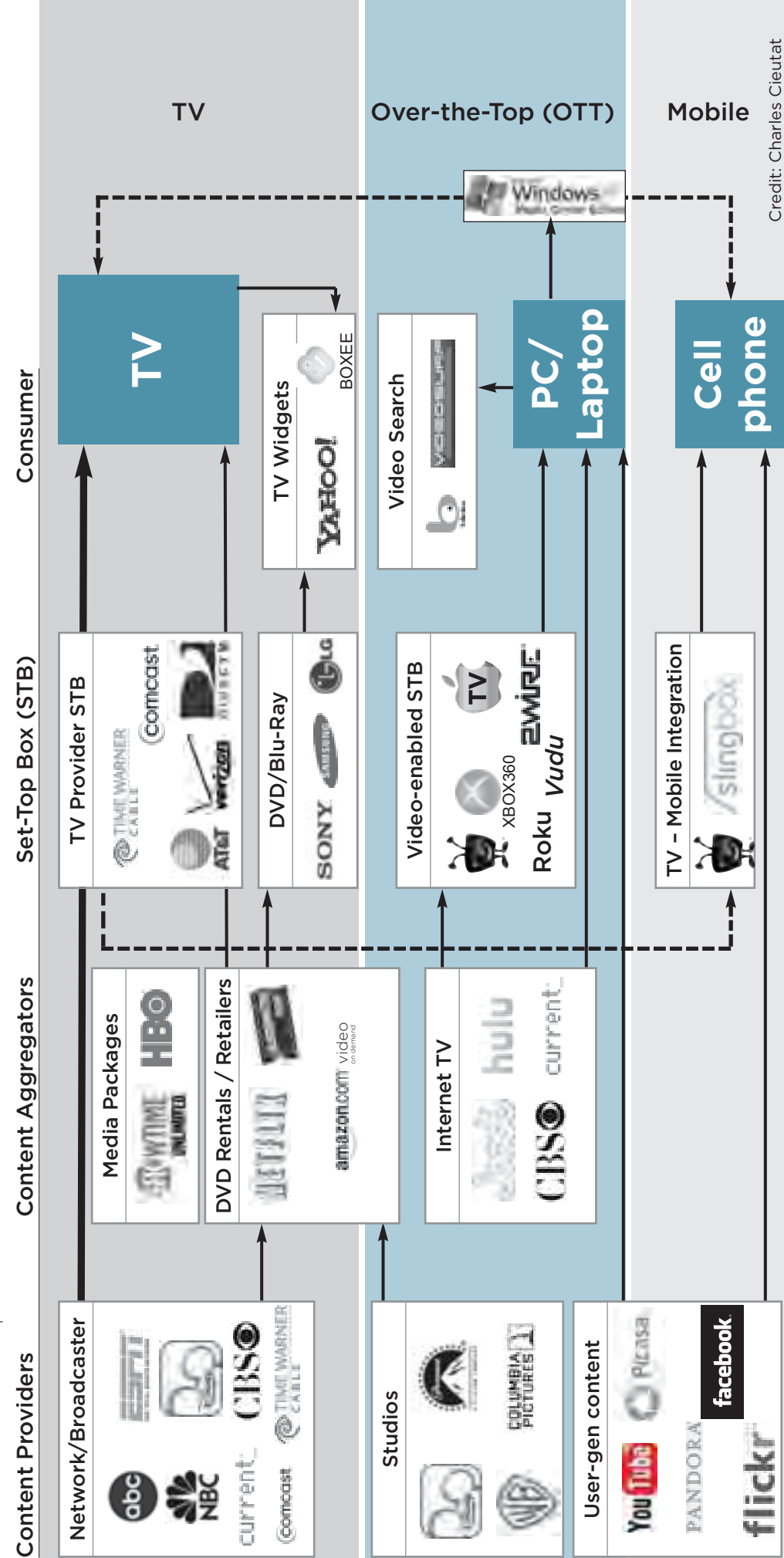
“We are extending our advertising platform from the internet to television,” explained Keval Desai, Google’s Director of Product Management. “We hope viewers of television will get to see more relevant ads, advertisers will get to have more accountable advertising campaigns and publishers or media companies will get to monetize their inventory in a very efficient manner.”

Desai said the set-top box used by millions to access video content is really a computer with the ability to transmit data in two directions. “If you think about it, every time somebody switches a channel on their TV or skips an ad using their remote control, all of those clicks are stored

in a set-top box. If we can measure that information, collect it, and provide it back to the advertiser, we can measure clicks and impressions on TV advertising,” he explained, adding that TV manufacturers are responding to the demand to watch content from the internet by building large-screen sets with a built-in ethernet connection. “Certainly the world of television and the world of internet are coming together. That provides tremendous opportunity for users, advertisers, and publishers.”

While Google is matching advertisers with programming, Tidal TV, another venture-backed start up, takes a slightly different approach to aggregating and monetizing video content. “Our idea was to aggregate content in one place, so if you are a food *passionista*, which is what we call it, we’re your place (for content),” explained Dartmouth alum Robert Quicksilver, who serves as Tidal’s chief content officer. “We go to the advertiser and say, “OK, Kraft, you can buy *The Office* on Hulu, which attracts a lot of people, but not all of them are interested in food. . . or you can buy our vertical (channel) on Tidal TV and we’ll give you only food *passionistas*,” said Quicksilver, adding that there are about 60 million unique viewers a month that look for food-related video content.

Current Snapshot of the Video Value Chain





Matching consumers with specific content is a key element of profitability, according to Microsoft's Westlake, who crafted the deal with Netflix that allows Microsoft Xbox users to download movies. Westlake, who has signed deals to license more than 11,000 hours of programming for the Xbox, said Microsoft's current video-on-demand business relies on "a consignment model."

"They [content providers] place content with us," he explained. "We price it based on the terms of a deal we cut. We have a split. They get a certain percentage; we get a certain percentage."

Westlake said the push toward customizing video content rocks traditional advertising models based on age, geographical location, or other factors. Older consumers may prefer to watch video online while younger ones prefer to watch TV at home. "We're now able to serve people no matter where they are."

Moving forward, he and other executives said the challenge is how to divide up the revenue when so many players are involved in every deal.

"I think the success will go to those who can play into multiple platforms and move away from models with a restricted media window," said Steve Abraham, Global Leader, Media & Entertainment, IBM Global Business Services. Abraham, who moderated the 2009 Tech@Tuck panel discussion, pointed out, "Most of the revenue still comes from the traditional channels of distribution, but it's only a matter of time before, if you are stuck in the world of the past, you won't be one of the major players of the future."

Abraham suggested companies producing and distributing video take a close look at Apple's iTunes model, which owes its success to combining a great price point for songs with an easy-to-use device. "The real question (for those producing video content) is to see whether someone can create a new business model—an industry-changing move like what Apple did for music."

Cisco's Tony Bates is also watching the monetization battle with interest. "There's a bit of a battle with the over-the-top players saying the network

should be free and the network folks saying, 'well, I'm the one who's carrying this and negotiating the content rights,' so I think you're going to see a lot more *co-opetition* [cooperation and competition] between companies."

When it comes to making money through re-purposing and distributing video content, Disney stands out as a leader. Disney owns channels in 163 countries and produces programming in 32 languages. Disney's Rich Ross said the company's content is distributed in movie theaters, on DVDs, video games, radio networks, and websites. "We have a seamless, 24/7 environment," said Ross, who heads up a team of 2,000 people worldwide.

Other companies are following Disney's multi-platform content distribution and monetization model. Kenny Miller, Executive Vice President and Creative Director, MTV Networks, Global Digital Media, oversees a variety of websites including Nickelodeon for kids and The N, aimed at pre-teens. The most popular MTV-owned sites are dynamic, featuring pop-ups, multiple windows, audio clips, video clips, and links to games and other interactive features such as contests.

Miller said MTV Networks offers young consumers quite a bit of content at no charge but charges fees and offers subscriptions for features including games and educational programs. He said monetizing online video content is a challenge because it's difficult to "lead in" or keep viewers around to watch the upcoming program. Instead, viewers can cherry pick content, moving from clip to clip.

Miller's colleague, Melody Tan, Senior Vice President, Strategy and Business Operations for Content Distribution and Marketing, MTV and BET Networks, said her goal is to monetize as much content as possible by treating "each asset uniquely."

Monetizing online video content is a challenge because it's difficult to "lead in" or keep viewers around.



“*The Daily Show* or *The Colbert Report* on Comedy Central can go up (online) very quickly after the on-air premiere because it’s very timely content, new, and in many ways disposable,” Tan explained, adding that some MTV and BET programs will never be posted online in their entirety. “You don’t want to set up a business where one aspect is cannibalizing another,” said Tan, adding that when it comes to distributing content, “online is really powerful—we need to grow the overall pie.”

Mining and monetizing valuable consumer data is extremely important for companies like Mindshare, according to Andy Chapman, Managing Director, MindShare North America. Chapman, who works hand-in-hand with the parent company WPP’s creative agencies to help clients decide where to buy advertising said, “Mindshare is sitting on an immense amount of [consumer] data.”

Mindshare is hoping to gain an advantage over competitors by mashing up the data and using it to counsel clients about how best to spend their ad dollars. Chapman emphasized that advertising today is less about driving people to one place to buy things and more about reaching people with targeted ads while they are watching their favorite shows online or on television.

Traditional television advertising models are also being challenged. For example, Google TV Ads has changed the way advertisers pay for ads inserted in or placed adjacent to online television shows. Unlike traditional television advertising rates, which are based on the program and time of day it airs, Google advertisers pay only for actual impressions delivered. Pricing is based on a cost per thousand (CPM) basis. The process is automated and prices are set through an online auction mechanism. This innovative model offers enormous flexibility in contrast with the current system where advertisers preview new television shows ‘upfront’ and commit to buying the bulk of their ads in advance.

Dan York, EVP of Content, AT&T, agrees with Chapman and other executives that highly-targeted ads are gaining traction as interactive technology improves. He proposed an intriguing scenario: “Mom, dad, and their 14-year-old daughter could all be watching the same show *The Office*, for example, at home on three different television sets, but they would all see different commercials.”



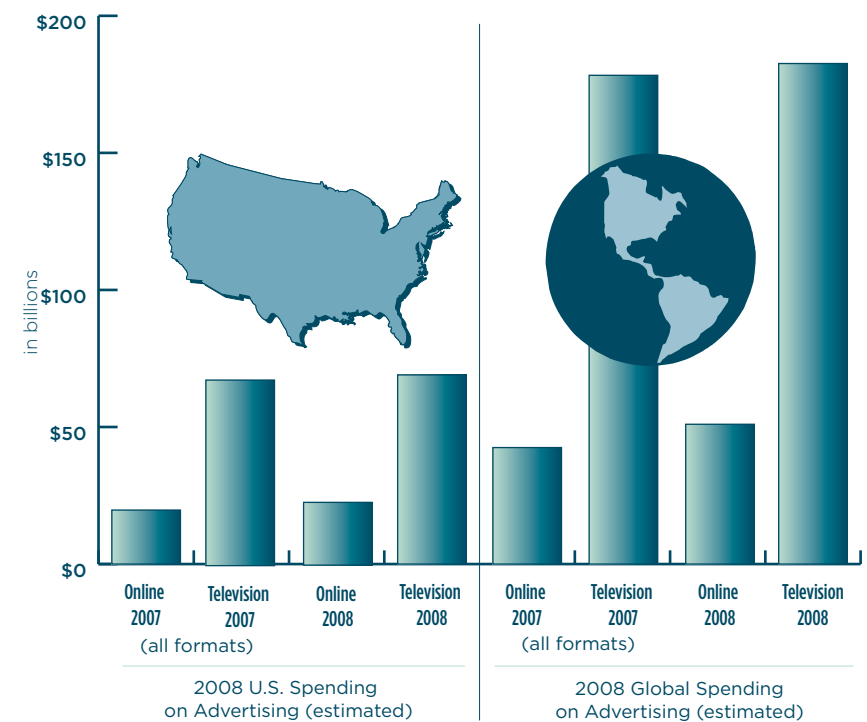
The ability to target individual consumers is creating exciting new opportunities for both advertisers and content distributors. York said although AT&T collects and uses personal information to customize content offerings, it is vigilant about protecting the privacy of its customers. He said AT&T is also getting into the content production business, seeing that as another way to attract and retain its customers.

While content providers and distributors are racing to offer more video content online, many advertisers are taking a wait-and-see approach to online advertising.

“There is no shift of advertisers away from broadcast TV just yet in favor of online video, even though in our surveys advertisers keep threatening to pull dollars away from TV,” commented Forrester Research’s James McQuivey. “They haven’t done so yet—TV advertising is still enormous.”

No matter how popular online video becomes, the executives and industry experts who participated in the Britt Technology Impact Series were unanimous in their opinion that television is here to stay. “Well, this may sound funny, but I think we’ve discovered the killer app. That is TV,” commented Time Warner Cable chairman and CEO Glenn Britt. “Watching a video program in your home is an enormously powerful thing and I think that’s the most powerful thing we’re going to see.”

2008 Advertising Dollars



Source: Group M



Who will win *the battle?*

So, what is the future for new and traditional video content producers and distributors? Who will win the battle for people, platforms and profits?

There has been some suggestion that the media and entertainment industry's established business models are under fire due to the disruption caused by innovative video channels and platforms like Google's YouTube.com. However, it seems the most significant effect of these new channels is not an immediate negative impact on established businesses, as the majority of Americans will continue to watch most video content at home on a television. Instead, it is the importance of developing an understanding of the willingness of consumers to watch and share content beyond their living room TV set.

Consumers' growing demand for access to content anywhere, at any time, on any device, has some experts suggesting that this is a game at which the established media giants could perhaps lose. However, one can take the opposite view, proposing that this shift in consumer expectations could present an opportunity for gain. Rather than necessarily disrupting established business models, innovation of video production, distribution, and consumption could push the industry to become more nimble and innovative in order to maintain its audiences and sources of revenue.

Content producers are being afforded new opportunities as viewers become increasingly comfortable watching their content on multiple screens. Repurposing content, as well as resurrecting archived materials, has created new and welcome sources of revenue. In addition, competition created by the increasing number of players offering distribution channels has yielded a more robust and competitive environment which, as HBO's Bob Zitter attests, is a positive. Content producers like NBC are aggressively moving toward establishing themselves as a major distribution channel for internet and possibly mobile content through the creation of their Hulu joint venture. Meanwhile, other networks "may prefer to strike deals with relatively new players and will eventually jump into whole-hog internet

distribution and streaming paired with a cheap HDMI-outputting box, like Roku . . . or simply strike their own deals for internet distribution and archiving in hopes that people abandon the pay-TV providers altogether ,” states Nate Anderson of Ars Technica.

While consumers are embracing access to content through multiple platforms, companies are experimenting with offerings that entice consumers back to the subscription and advertising models that have long been the underpinnings of the industry. Many incumbent content distributors who

Offerings like “TV Everywhere” would allow subscribers to access programming on multiple platforms.

are at or near full penetration of their markets look to emerging consumer behavior as an opportunity, leveraging their position of providing essential services such as internet and voice to grow their businesses by offering quadruple play packages and services. Rollout of offerings like “TV Everywhere” would allow subscribers of cable,

telco and satellite TV services the ability to access programming they have already paid for through their subscriptions on multiple platforms, including online and via mobile devices. And not just current content, but huge back catalogs of music or television with the idea that the service would be offered as an incentive to keep consumers from dropping pay-TV altogether indicates Time Warner Inc. chairman and CEO Jeff Bewkes. In addition, Anderson suggests, this play could put pressure on DVR makers and devices by providing a simple, always-available archive of cable content that lives in the cloud and can be recalled on demand.

Growing audience while simultaneously growing the bottom line has spurred business strategy innovation throughout the industry. As a result of this shifting landscape several business models have emerged, from the standard subscription model, to a newer consignment model where several parties in a distribution deal split revenues amongst themselves. These models will undoubtedly continue to evolve as the number of players increase and the pie has to be split more ways.

The expectation of free content could be one of the most disruptive challenges of the multi-platform video production and distribution race, though

the public is showing signs of agreeing to a pay for premium content. The challenge for the industry is how to allow consumers to discover and consume premium content via platforms that have largely at least to date, established themselves as free.

Google’s play into television advertising may, however, emerge as the most disruptive challenge for television’s marriage with the internet. Should Google establish an auction model for TV, more aspects of the established business models will be disrupted, most importantly the advertising industry itself. In fact, the growing demand from advertisers for detailed consumer data to inform ad buys could spur whole new businesses for all sectors in the media and entertainment industry. Hard data and metrics used to define audiences will likely become one of the most important tools in monetizing content and developing revenue streams. The drive to understand and own the audience could become a major source of innovation and drive synergy between entities that seem unlikely bedfellows.

While no company has a secret formula, it is clear that there is real opportunity for growth and expansion as consumers increase their individual demand for video on multiple platforms. The big question will continue to be how companies can increase viewership, maintain or develop new means for monetizing content, and innovate quickly enough to win the battle for people, platforms and profits.

Those devoted to responding to consumer demand for dynamic, entertaining video content will be well positioned to beat the competition.

“Whoever’s making the content has the power and position to make this work,” said Forrester’s McQuivey, adding “Companies can profit by figuring out how to tap into the fundamental need of humans to share an entertainment experience. If you are in tune with that need, you are in a strong position to navigate the technology and the changes in business models,” he said. “All of that stuff is being driven by the fundamental social need that people have to share and experience this content together.”

No matter how this develops, it is clear that consumers will increasingly have more content available to them and the options for how they access that content will continue to expand.

Stay tuned!



A la Carte – Programming would allow cable subscribers to select to which channels they would like to access. Most cable companies only sell packaged deals.

Authentication – Protecting access to proprietary video programs and content via passwords.

Broadband Communications System – Any system capable of delivering wide-band channels and services.

Broadband – Technology that transmits voice, data, and video simultaneously at rates of 1.544Mbps or higher. Broadband can handle several channels at once.

Bundling – A package deal that packages together several services offered by a company. Communications companies often bundle services and offer them at a discount.

CATV – Stands for Community Antenna Television and originated in the 1940s. In rural areas, where over-the-air reception was poor, communities built large antennas and ran cable to each home.

Cut the Cord – Term refers to cancelling a subscription to services provided by a cable or satellite company.

Digital Video Recorder (DVR) – A set-top box which records television programs on a hard disk. It also allows viewers to pause programs and skip commercials. The ability to skip commercials can be limited by new technologies.

Direct Broadcast Satellite (DBS) – Satellite technology that transmits signals directly to the end user or customer. Subscribers receive the signals from space via small satellite dishes.

Digital Television (DTV) – DTV sends and receives moving images and sound by discreet digital signals, rather than the analog signals used by analog TV. By June 2009, Congress mandated American consumers to convert to digital television signals by buying a set-top box or new TV.

Disintermediation – Removing the middle person in a supply chain. Many content providers deal directly with consumers, especially by providing content online.

High Definition Television (HDTV) – HDTV provides a picture with twice the visual resolution of NTSC formats as well as better audio quality.

ITV (Interactive Television) – This technology combines television with the internet. Users can access the internet while watching TV.

IPTV (Internet Protocol Television) – A system that delivers a digital television signal via a broadband connection. Instead of delivering content through traditional broadcast and cable formats, the content is received through the same technology used by computer networks.

Media Multi-tasking – Watching multiple screens. Very popular among younger video consumers.

Mobisodes – Short video clips produced especially for viewing on mobile phones.

Over-the-top – Video content delivered via the internet, often at no charge.

Pay-Per-View (PPV) – Programs purchased by cable subscribers on an individual basis. Orders are usually placed via a phone line connecting the television to their cable or satellite service provider.

Pull Mode – A delivery method where the subscriber orders data or programming from a content provider.

Push Mode – In contrast, content providers transmit data on a schedule.

Set-top Box – A computer that connects to a TV and transmits signals to and from the device.

Time-shifting – The ability to record and watch programs at a later time by recording them.

User-generated Content (UGC) – Content generated by anyone with the equipment and ability to distribute it.

Video-on-Demand (VOD) – VOD lets subscribers order programs or movies from a library of content stored remotely. The technology allows users to pause, record, and fast-forward through programs.

Walled Garden – An expression referring to companies seeking to limit access to premium content to those customers who pay for it.

Webisodes – Short video clips produced specifically for viewing online.

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The CDS MBA Fellows also conducted exclusive interviews with many of the executives contributing to this report.

To access the interviews or get more information on the Center for Digital Strategies please visit:

www.tuck.dartmouth.edu/digitalstrategies



TUCK

This DVD presentation, produced by the Center for Digital Strategies, features highlights and interviews from the 2008–2009 Britt Technology Impact Series. For additional information and to access our archive of Radio Tuck and Tuck TV interviews, visit our website: www.tuck.dartmouth.edu/digitalstrategies

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CONTENT & TECHNOLOGY TIMELINE

Consumer demand for video content drives companies to create new technologies, programs and products. Much has changed in the last 70 years and some of the highlights are noted here.



1920s

1926
NBC founded



1930s

1938
DuMont sells first TV set to public

1940s

1941
FCC authorizes commercial TV

1943
ABC Television founded



1946
Soap company sponsors first network TV soap opera

1948
Americans own one million TV sets

1950s

1951
"I Love Lucy" debuts

1952
"Howdy Doody" Show used to sell color TV sets



1955
Broadcasters boost ad revenue through multiple sponsors

1959
"Bonanza" debuts

1960s

1960
Nixon/Kennedy debate televised



1963
Regular programming halted for four days after JFK assassinated



1969
Neil Armstrong's June 20 "moon walk" televised and watched by 600 million

1970s

1971
Scientific American ad for \$750 Kenbak-1 personal computer

1972
Phillips Video Cassette Recorder



HBO launches



1975
IBM 5100 - first portable computer



1977
Qube introduced

Commodore PET, Apple II, Tandy PC released



1980s

1980
CNN launches



1982
Sony and JVC introduce camcorders

First laptop released

MTV launches



1984
Congress passes 1984 Cable Act



1986
Fox launches as fourth commercial network



1988
Compaq markets first mass market laptop

1990s

1991
National Science Foundation allows commercial access to internet



1994
Primestar delivers first digital signals in U.S.



1996
Telecommunications Act permits convergence of telephone, cable and internet

Panasonic launches mini DV Camera

1998
First high-def TV and first video-enabled mobile phone



1999
Apple releases Final Cut Pro® editing software

TiVo hits the market making it easy to record programs

2000s



2001
Apple releases iPod



2003
JVC launches high-definition video camera

2005
YouTube launches



2007
Flip Video Camcorder released

Apple launches the iPhone



2009
U.S. mandates digital TV conversion

