

KAREL COOL, MATT SEITZ, AND JASON MESTRITS

---

## **YouTube, Google, and the Rise of Internet Video**

In November 2007 Google celebrated the one-year anniversary of its acquisition of YouTube. YouTube and Google Video had accomplished a major feat: together they accounted for four times as many unique visitors as their closest competitor in the Internet video market space. YouTube had become synonymous with online video sharing thanks to its brand strength and loyal user base. In fact, YouTube's brand had skyrocketed to third place in an online brand ranking, with survey respondents rating only Google and Apple as more influential.<sup>1</sup>

Although Google and YouTube had much to celebrate, they also had many issues still to face. Google had spent \$1.65 billion in stock to acquire the young video-sharing Web site only a year and a half after YouTube was founded. The emergence of competition in the video-sharing market continued to be rapid and Web trends were increasingly volatile. Some analysts also questioned viewers' long-term attachment to YouTube. According to one blogger, "It's hip to be social these days but it's not at all clear that people are so 'emotional' about or attached to home videos and amateur content that significant network externalities have been created."<sup>2</sup> In fact, one analyst argued that "YouTube is [both] a time bomb and a gold mine waiting to happen."<sup>3</sup> Neither Google nor YouTube had built a proven business model for Internet video. How would Google develop YouTube into a profitable business without compromising its leadership position in the Internet video category? What was to become of Google's own video site? Would the attributes that had fueled Google's meteoric rise in Internet search apply equally to Internet video?

### **The Internet Video Industry**

On the heels of Google's acquisition of YouTube, Internet video had emerged as one of the hottest consumer technologies. While the demise of traditional broadcast television was in no way imminent, more and more viewers were watching video on the Internet. In a 2006 survey by research firm IDC, 33 percent of respondents reported watching Internet video. Of those, 17 percent said they watched videos daily while 42 percent watched them weekly. Although some consumers were watching full TV shows online, the most popular types of Internet video included short, user-generated clips, movie trailers, music videos, and news clips. The study

---

<sup>1</sup> Brandchannel.com Reader's Choice Awards 2006, January 2007.

<sup>2</sup> Starling Hunter, "Google, YouTube, and the Questions of Value," August 2006, [http://www.thebusinessofamericaisbusiness.biz/2006/10/google\\_youtube\\_and\\_the\\_questio.html](http://www.thebusinessofamericaisbusiness.biz/2006/10/google_youtube_and_the_questio.html).

<sup>3</sup> Greg Sandoval, "YouTube Could Be a Steal at \$1 Billion," *CNet News*, August 2006.

showed that Internet video was infrequently purchased, with more than three-fourths of respondents never having paid for content. Furthermore, few respondents reported any interest in paying for the most commonly watched types of Internet video.<sup>4</sup>

Internet video had been dominated by user-generated content (UGC), which consisted mostly of amateur video content, Web-cam recordings, and home video clips. However, as the popularity of this format continued to grow, professional content producers had taken notice. In some cases, such as with the matriarch of the category, “Lonelygirl15,” professional content was being produced exclusively for release on sites such as YouTube or MySpace. Marketers watched the popularity of these sites closely as they jockeyed for position in attempts to increase their presence online.

Internet video’s popularity indicated a bigger trend for entertainment “on demand.” Some experts projected that by 2010, revenues of video-on-demand (VOD) services would reach as much as \$12 billion, of which Internet videos would account for one-third. This marked significant growth over 2006, in which the Internet represented less than 10 percent of all VOD revenues.<sup>5</sup> It was also forecast that as the Internet grew as a distribution channel for VOD content, so, too, would the percentage of revenue coming from Internet advertising.

## Company History

### *YouTube*

YouTube had become hands-down the most popular video-sharing Web site, where users could upload, view, and share video clips. The site was started on February 15, 2005, by three former PayPal employees: Chad Hurley, Steve Chen, and Jawed Karim. The three started the site in part because of their frustration with the difficulties of sharing video files. Initially operating out of one of the founder’s garages, YouTube first received funding from an angel investor and developed over a period of six months. In November 2005 investment firm Sequoia Capital invested \$3.5 million,<sup>6</sup> and Roelof Botha, a partner at Sequoia and former CFO of PayPal, was elected to the YouTube board of directors. In April 2006 Sequoia put an additional \$8 million into the company.<sup>7</sup>

During the summer of 2006, YouTube was ranked the fifth most popular Web site by Web traffic–ranking service Alexa.com, with a growth rate far outpacing other popular new sites such as MySpace. It quickly became preeminent in the online video market. YouTube hosted more than 60 percent of all videos watched online and held 29 percent of the U.S. multimedia

---

<sup>4</sup> “U.S. Internet Video Usage: 2006 Survey Results,” IDC white paper #204728, December 2006.

<sup>5</sup> “What’s on Next: The Future of Television,” *The Economist*, February 8, 2007.

<sup>6</sup> Scott Woolley, “Raw and Random,” *Forbes*, March 13, 2006, <http://www.forbes.com/business/global/2006/0313/027.html>.

<sup>7</sup> Michael Arrington, “Did YouTube Just Raise Another \$25 Million?” *TechCrunch*, April 30, 2006, <http://www.techcrunch.com/2006/04/30/did-youtube-just-raise-another-25-million>.

entertainment market.<sup>8</sup> Users watched 100 million clips daily and uploaded more than 2,700 new videos every hour.

That same year, Google purchased YouTube for \$1.65 billion. YouTube's rapid success had been fueled almost entirely by word of mouth—even if those words were being sent by e-mail. The merger garnered huge attention across many industries and raised many questions regarding Google's intentions. Of particular concern was the future of Internet video and the legal issues that were involved in the free posting of copyrighted materials. YouTube had previously been small enough not to be targeted for copyright litigation, but that was no longer the case. In one respect, it was this "anything goes" mentality that had made YouTube such a smash hit. Anyone could go onto the site and see countless clips ranging from NBC's *Saturday Night Live* to excerpts from newly released movies.<sup>9</sup> With a large corporation now in charge, YouTube's pockets were suddenly much deeper and legal activity against the newly formed "Goo-Tube" increased almost instantly. Google was prepared for this, however; it had set aside almost \$200 million to cover litigation costs as part of the YouTube acquisition.<sup>10</sup>

After the merger plans were announced, YouTube began removing copyrighted materials from its site, including popular clips from Comedy Central and other networks. Further, in response to a lawsuit by Viacom, YouTube announced a new policy of removing any video upon notification from the legal copyright owner.<sup>11</sup>

Media firms such as E! Networks and MTV had reached agreements to place branded content on the site. YouTube had reached other content and ad revenue-sharing agreements with CBS Corporation that were related to video content from CBS Broadcasting, Showtime Networks, and CSTV Networks. YouTube had also inked similar deals with Warner Music Group, Universal Music Group, and Sony BMG to license and distribute copyrighted music content on the site, and was working on a policy to share revenue with users who submitted video clips.<sup>12</sup>

The fact that a significant amount of YouTube's content had included copyrighted material—often from broadcast TV, DVDs, or CDs—had been a deterrent to brand advertisers who remained unwilling to place their marketing messages alongside or, in some cases, inside stolen or controversial material. YouTube claimed to be poised to deploy technology that rooted out copyrighted materials, but such efforts had thus far been largely unsuccessful, marred by both false positives where legal content had been deemed to be copyrighted and significant violations that had slipped through the cracks.<sup>13</sup>

---

<sup>8</sup> "YouTube Serves Up 100 Million Videos a Day Online," *USA Today*, July 16, 2006, [http://www.usatoday.com/tech/news/2006-07-16-youtube-views\\_x.htm](http://www.usatoday.com/tech/news/2006-07-16-youtube-views_x.htm).

<sup>9</sup> Hoovers.com, YouTube, LLC.

<sup>10</sup> Laura M. Holson, "Hollywood Asks YouTube: Friend or Foe?" *New York Times*, January 15, 2007.

<sup>11</sup> Christopher D. Newkirk and Thomas A. Forker, "Does YouTube's Bright Past Mean a Cloudy Future?" *Intellectual Property and Technology Law Journal* 19 (January 2007): 1–6.

<sup>12</sup> Holson, "Hollywood Asks YouTube: Friend or Foe?"

<sup>13</sup> Andrew Frank and Allen Weiner, "Google Will Face Challenges in Wake of YouTube Acquisition," Gartner Research, ID#G00144098, October 12, 2006.

## Google and Google Video

*What Google did for the Web, Google Video aims to do for television. This preview release demonstrates how searching television can work today. Users can search the content of TV programs for anything, see relevant thumbnails, and discover where and when to watch matching television programs. We are working with content owners to improve this service by providing additional enhancements such as playback.*

—Larry Page, Google co-founder and president of products  
January 2005

When Google launched its Google Video service in January 2005, it allowed users to search captions from TV shows but did not provide the actual videos. For instance, typing the title *Nightline* searched the closed-captioning text of all the programs in the Google Video archive for relevant results. Clicking on a title yielded a results page that allowed users to read snippets of text, view still images from the show, and see information about the show such as upcoming episode information and its next scheduled air date.

Three months later Google began accepting user-submitted videos. Users could also set a price for their videos if they wished. By June 2005 Google Video had dropped the TV show idea and started to concentrate on letting people upload and view UGC. However, the technology was limiting since a downloadable plug-in from VideoLAN was required to watch the videos. Many users had trouble getting videos to play at all, and in September Google Video switched from the downloadable browser plug-in to Flash technology to play its videos. This Flash plug-in was more commonly installed and much faster to use.

In January 2006 Google Video launched the Google Video Store, offering premium content from providers such as CBS, Sony BMG, and ITN. Payment was made through a system that would later be known as Google Checkout. Users could play purchased videos through a Google Video Player and logging into Google's Web site. In April Google added "The Google Video Top 100," a feature that ranked and linked the most popular videos hosted on the site. By May users could upload videos online through Google Video's site; previously, they had to submit videos using a desktop client that had to be downloaded and installed. Google also began to test contextual video ads, which would eventually develop into the site's main source of revenue. The site also began to include movie trailers.

By the summer of 2006 Google had started a limited test with ad-supported premium content, developed a video player for Mac users, and incorporated some community features such as a system for adding comments, ratings, and labels. Google Video then launched in eight international versions and began to integrate an easier system for adding its video content to blogs and MySpace. Google also added a link from the Google portal homepage to Google Video.

At this time, Google Video had claimed only a minor share of the online video market, despite its capability to download content in multiple formats, a less restrictive policy on video uploads, and a tremendous brand name. According to one poll, Google Video had only about 8 percent of the online video market while YouTube had about 27 percent.<sup>14</sup> Users who posted videos to both sites had noted an increase in YouTube traffic and a decrease in Google Video's.

---

<sup>14</sup> Bill Tancer, "Google Video, YouTube and MySpace Vids: An Update," August 16, 2006, [http://weblogs.hitwise.com/bill-tancer/2006/08/google\\_youtube\\_and\\_myspace\\_an.html](http://weblogs.hitwise.com/bill-tancer/2006/08/google_youtube_and_myspace_an.html).

In October 2006 Google announced the impending acquisition of YouTube for \$1.65 billion. Google executives believed the deal would help transform their company into a global media powerhouse and provide new audiences for the targeted advertising that was the lifeblood of Google's earnings. Google planned to retain YouTube as a stand-alone service while continuing to nurture Google's existing video service.

In January 2007 Google announced plans to transform Google Video into a video search engine and began to index YouTube videos and add personalized recommendations on its homepage. By June 2007 Google Video had added other video-hosting sites to its index and became a true search engine for video. The index included videos from sites such as Metacafe, iFilm, Grouper, Yahoo! Video, and MySpace, but YouTube dominated the search results.<sup>15</sup>

One year after the acquisition, Google Video was operating as a free video-sharing and video search engine. Users could search and play uploaded videos directly from the Google Video site or download videos and remotely embed them in their Web pages and blogs. The site's content consisted of an archive of freely searchable videos including amateur video, Internet video, advertisements, movie trailers, and commercial professional media such as televised content and movies. Google reiterated plans to continue expanding its video library; however, in August 2007 the company opted to close its Google Video Store service.<sup>16</sup> Customers who had paid for copyright-protected videos were no longer able to view their previously purchased content.<sup>17</sup>

## Competitive Landscape

### Portals

The most established companies in the Internet video marketplace were the traditional online portals. Three of the most prominent providers were AOL Video, MSN Video, and Yahoo! Video, each of which had addressed online video to some degree within its existing product offerings.

#### AOL

AOL.com, a site owned by Time Warner, launched a video service in August 2006. This Internet video service featured UGC and programming from several cable networks, including MTV, Nickelodeon, A&E, and Time Warner's corporate partner, Warner Brothers.<sup>18</sup> AOL Video included roughly forty-five new VOD content channels, organized and accessible through video search, browsing, or an interactive programming guide. It featured free streaming content with the option to purchase and download full-length versions, which were viewable both on- and offline via PCs and multiple other electronic devices. There was a great deal of content available, including millions of music videos, news clips, movie trailers, and full-length TV shows. The

---

<sup>15</sup> "Google Frames a Video Search Engine," June 13, 2007, <http://googlesystem.blogspot.com/2007/06/google-videos-new-frame.html>.

<sup>16</sup> "InsideGoogle," August 13, 2007, <http://google.blognewschannel.com/archives/2007/08/13/google-video-store-turns-off-the-lights>.

<sup>17</sup> "A Brief History of Google Video," August 17, 2006, <http://googlesystem.blogspot.com/2006/08/brief-history-of-google-video.html>.

<sup>18</sup> "AOL Revamps Video Portal With Links to Rivals," *USA Today*, July 30, 2006, [http://www.usatoday.com/tech/news/2006-07-31-aol-video-portal\\_x.htm](http://www.usatoday.com/tech/news/2006-07-31-aol-video-portal_x.htm).

portal also included AOL's new UnCut Video offering, which allowed customers to upload and share videos online directly from a camcorder, mobile phone, or PC.<sup>19</sup> The site also allowed users to search for videos on other Web sites.<sup>20</sup> As of August 2007, AOL Video had a significant user base, at 13.6 million unique visitors (**Exhibit 1**). AOL's strategy was to target as wide an audience as possible, not focusing on any particular demographic.<sup>21</sup>

#### MSN

In January 2004 Microsoft launched MSN Video, an Internet video download service featuring a variety of content—including music videos, viral videos, original content, TV shows, and news shorts—that could be downloaded directly onto users' portable media devices.<sup>22</sup> In September 2006 MSN Video launched Soapbox, a technology for users to upload video. Soapbox users could rate, comment on, and tag videos; create RSS feeds; and share links with others via e-mail. Web site maintainers or blog authors could also embed the Soapbox player directly onto their sites. "Soapbox delivers on a critical component of the MSN growth strategy of deepening audience engagement by enabling people to participate in the content experience," said Rob Bennett, general manager of entertainment and video services for MSN. "By adding a user-uploaded video service, we are rounding out our existing investments in licensed and original content on MSN Video."<sup>23</sup>

As of August 2007, MSN Video had 12.5 million unique visitors. MSN's strategy was to catch up with YouTube in market share. "It's early in the market," he said. "There is no question [YouTube has] an early lead. [But] there is still a lot of room for growth with innovation and competition."<sup>24</sup>

#### YAHOO!

Yahoo! Video was originally designed as a video search engine in May 2005. Its content included movie previews, excerpts from previously broadcast television shows, and original content.<sup>25</sup> In June 2006 Yahoo! Video re-launched, combining a traditional video search engine, linking to videos on different sites with a Web 2.0 service that allowed users to upload, share, tag, and host their videos on Yahoo! in an embedded player format. Additionally, users could share video through Yahoo! Mail and Messenger.<sup>26</sup> In August 2007 Yahoo! integrated its video content into its new photo-sharing site, Flickr.<sup>27</sup> That same month, Yahoo! Video had 12 million unique visitors, more than twice that of the prior year.

---

<sup>19</sup> Alexandra DeFelice, "AOL to Launch Free Video-Sharing Portal," *TechNewsWorld*, July 31, 2006, <http://www.technewsworld.com/story/52123.html>.

<sup>20</sup> "AOL Revamps Video Portal With Links to Rivals."

<sup>21</sup> Matthew Karnitschnig, "AOL to Launch Portal for Videos Amid Overhaul," *Wall Street Journal*, July 31, 2006.

<sup>22</sup> "Microsoft Launches MSN Video Downloads Online Video Service," *Mobiledia*, March 31, 2005, <http://www.mobiledia.com/news/28572.html>.

<sup>23</sup> Nate Mook, "Microsoft 'Soapbox' Takes On YouTube," *BetaNews*, September 18, 2006, [http://www.betanews.com/article/Microsoft\\_Soapbox\\_Takes\\_On\\_YouTube/1158638054](http://www.betanews.com/article/Microsoft_Soapbox_Takes_On_YouTube/1158638054).

<sup>24</sup> Elinor Mills, "Microsoft To Take On YouTube," *CNET News*, September 18, 2006, [http://www.news.com/2100-1026\\_3-6116971.html](http://www.news.com/2100-1026_3-6116971.html).

<sup>25</sup> "Yahoo Video Search Out of Test Phase," *MSNBC*, May 5, 2005, <http://www.msnbc.msn.com/id/7748712>.

<sup>26</sup> Laurie Sullivan, "Yahoo Relaunches Video," *InformationWeek*, June 1, 2006, <http://www.informationweek.com/showArticle.jhtml?articleID=188701027>.

<sup>27</sup> Arnold Zafra, "Yahoo to Launch a YouTube Like Video Portal," *Search Engine Journal*, August 25, 2007, <http://www.searchenginejournal.com/yahoo-to-launch-a-youtube-like-video-portal/5547>.

## New Players

### MYSPACE

MySpace.com was founded in 2003 by Chris DeWolfe and Tom Anderson. Originally focused on commerce, MySpace sought to identify communities of interest that grew organically and build official member groups around them. These once-grassroots groups then served as content platforms for old-media companies and consumer brands.<sup>28</sup> MySpace eventually evolved into the leading site for social networking by creating a connected community where users put their lives online. The site integrated Web profiles, blogs, instant messaging, e-mail, music downloads, photo galleries, classified listings, events, groups, chat rooms, and user forums into a unified user experience. MySpace was a major destination for advertisers, capturing advertising levels similar to Yahoo!, Google, and AOL, as well as a music destination where users could sample and share songs, and bands could upload MP3s of their music. Rupert Murdoch's News Corp./Fox Interactive Media unit purchased MySpace for \$770 million on July 19, 2005.<sup>29</sup>

In June 2007 MySpace enhanced its site with video-sharing capabilities. This new service, called MySpaceTV, was an independent Web site where people could share and watch videos even if they were not MySpace users. The site also offered new ways for MySpace members to integrate their videos into their personal profiles. In addition to showcasing consumer-generated content, MySpaceTV signed an agreement with Sony to distribute five-minute "Minisode" versions of 1980s sitcoms such as *Different Strokes* and *Charlie's Angels*.<sup>30</sup>

With MySpaceTV, a broad mix of professional material would be front and center, said Chris DeWolfe, MySpace's co-founder and chief executive. "We wanted to highlight the fact that we have a video destination on the Web with all this great content that we've acquired."<sup>31</sup> MySpace formed alliances with several content partners, including *National Geographic*, *The Daily Show*, and the *New York Times*. It also planned to partner with the NBC Universal/News Corp. venture to provide a legal online home for its professionally produced content.<sup>32</sup>

MySpaceTV also tried to more closely tie video into the social network. Each MySpace member page linked to a separate MySpaceTV channel that displayed videos the user had uploaded. Users could customize their channels the same way they personalized their profiles on MySpace.com. Later in 2007 MySpace planned to let users edit and combine videos on MySpaceTV into new clips.

MySpace expected MySpaceTV to appeal to studios and professional video makers with its aggressive protection of intellectual property. The company was among the first major video sites to use filtering software, which checked uploaded videos to determine if they were protected by copyright. As of August 2007, MySpaceTV was the second-leading video site, with 16.8 million unique visitors, trailing only YouTube.

---

<sup>28</sup> Reena Jana, "MySpace's New Chic Clique," *BusinessWeek*, August 27, 2007, [http://www.businessweek.com/innovate/content/aug2007/id20070827\\_614871.htm](http://www.businessweek.com/innovate/content/aug2007/id20070827_614871.htm).

<sup>29</sup> "News Corp. Buys MySpace.com," *ABC News Online*, July 19, 2005, <http://www.abc.net.au/news/newsitems/200507/s1417139.htm>.

<sup>30</sup> Brad Stone, "MySpace, Chasing YouTube, Upgrades Its Offerings," *New York Times*, June 27, 2007.

<sup>31</sup> *Ibid.*

<sup>32</sup> Alex Woodson, "MySpaceTV Takes On YouTube," *AdWeek*, June 28, 2007, [http://www.adweek.com/aw/national/article\\_display.jsp?vnu\\_content\\_id=1003604723](http://www.adweek.com/aw/national/article_display.jsp?vnu_content_id=1003604723).

## METACAFE

Metacafe Inc. was founded in July 2003 by Eyal Hertzog and Arik Czerniak. Headquartered in Palo Alto, California, Metacafe was an independent online video entertainment site that claimed more than 4.1 million unique visitors as of August 2007. Metacafe specialized in short-form original content from new, emerging talents and Hollywood celebrities. Metacafe ranked videos via its proprietary VideoRank technology, which adjusted videos' prominence on the site based on their popularity. Metacafe also had a Producer Rewards program, which paid content creators \$5 per every 1,000 views of their videos in exchange for non-exclusive rights to their content.<sup>33</sup>

## JOOST

Joost was founded in the spring of 2007 by Janus Friis and Niklas Zennström, the same team that founded Skype and Kazaa, which utilized peer-to-peer technology for file sharing and communication over the Internet. Joost, using a similar sharing technology, offered a fast, efficient, and cheap distribution method to studios, cable stations, and anyone else who wanted to distribute high-quality video over the Internet.<sup>34</sup> Joost was comparable to watching television with content targeted to the user.<sup>35</sup> A menu allowed users to switch channels by clicking a link and gave them TiVo-like control to skip forward or backward within a show. Users could also access any show offered regardless of the time of day.

CBS partnered with Joost early on, becoming the first broadcast network to join Joost's growing list of content providers. Executives were confident that the partnership with Joost would allow CBS to showcase its content while providing the means for unique advertising opportunities and an efficient delivery framework.<sup>36</sup>

## HULU

In October 2007 NBC Universal and News Corp. launched Hulu.com in a private beta. Hulu hosted professional video content, including prime-time and high-quality TV programs. The site did not include movies, sports, or news videos. Hulu did not include download-to-own video from the networks. NBC continued building its downloading service "NBC Direct" for this purpose and continued to sell it on Amazon, iTunes, and other sites.<sup>37</sup> As part of the Hulu launch, NBC removed all promotional content from its YouTube channel.

The content on Hulu encompassed all NBC programming currently available online and on sites owned by its distribution partners, including Microsoft and Time Warner's AOL. The site also had content from Comcast, including shows on the Style and Golf channels, as well as shows from small networks such as Oxygen, Sundance Channel, TV Guide, and National Geographic. In addition to delivering content on its own site, Hulu also made content available through

---

<sup>33</sup> Metacafe press release, "Metacafe Launches Producer Rewards™ for Short Video Creators," September 31, 2006, <http://press.metacafe.com/?p=61>.

<sup>34</sup> Greg Sandoval, "Skype Founders Name New Video Start-Up Joost," *CNET News*, January 16, 2007, [http://www.news.com/Skype-founders-name-new-video-start-up-Joost/2100-1026\\_3-6150225.html](http://www.news.com/Skype-founders-name-new-video-start-up-Joost/2100-1026_3-6150225.html).

<sup>35</sup> "25 Startups to Watch," *CNNMoney.com*, July 2007.

<sup>36</sup> "CBS Gets Joost: Launch in Spring 2007," *Huliq News*, April 25, 2007, <http://www.huliq.com/19759/cbs-gets-joost-launch-in-spring-2007>.

<sup>37</sup> Catherine Holahan, "The Hubbub Over Hulu," *BusinessWeek*, August 30, 2007, [http://www.businessweek.com/technology/content/aug2007/tc20070829\\_979664.htm](http://www.businessweek.com/technology/content/aug2007/tc20070829_979664.htm); Daniel Langendorf, "Hulu Set to Debut," October 26, 2007, *Last 100*, <http://www.last100.com/2007/10/26/hulu-set-to-debut-critics-see-nbc-news-corp-venture-as-failure>.

distribution partners such as AOL, Comcast's Fancast.com, MSN, MySpace, and Yahoo!.<sup>38</sup> Other networks such as CBS, Disney, and Viacom chose not to be part of this venture. Hulu's user interface also allowed Web site creators and blog authors to embed video clips in their sites.<sup>39</sup>

Hulu competed with broadcast television for viewers of popular shows owned by News Corp.'s Fox and NBC, such as *Heroes* and *The Simpsons*. NBC welcomed this competition, as it increased the availability of its professionally created video content. "At the end of the day, we believe premium professional content wins," says George Kliavkoff, NBC Universal's chief digital officer. "We believe there is power in aggregating that content." NBC also expressed a desire to focus on a widely distributed, high-quality product.<sup>40</sup> As part of this strategy, Hulu announced plans to make its content available via a specialized player that could be embedded on many different types of Web sites, including NBC.com, Yahoo!, Facebook, and blogs.

While some saw Hulu as a challenger to YouTube, James McQuivey, analyst for Forrester Research, thought Hulu posed a bigger threat to Apple's iTunes. "Where YouTube specializes in showing short clips submitted by its millions of users, Apple sells TV shows and movies, a model that Hulu undersells by offering ad-supported content at no charge . . . We already know that ad-supported delivery is the way most people get content, and it's going to be the same on the Internet. Advertising drives most video, and the Internet won't be any different."<sup>41</sup>

#### BLIPTV

Blip.tv was founded in May 2005 by Mike Hudack, Dina Kaplan, Justin Day, Jared Klett, and Charles Hope. Blip.tv was an online television network focused on featuring, promoting, and monetizing the best original, serialized shows on the Web. The goal was to have content creators focus on making great shows, while Blip.tv would take care of the technology, distribution, marketing and publicity, and monetization. Shows posted on Blip.tv ranged from scripted sitcoms and dramas to news magazines. The site shared its advertising revenues with show creators and also syndicated shows to AOL Video, Yahoo! Video, iTunes, and additional platforms on and off the Web.<sup>42</sup> As of November 2007, Blip.tv had approximately 500,000 unique visitors.<sup>43</sup>

#### OTHER COMPETITORS

Other competitors included Break.com, a video-sharing site that gave users incentives to submit videos by offering monetary rewards based on popularity. Veoh was an online video-sharing service that distributed content in its original format instead of converting it to a low bandwidth and lower-quality version. Brightcove was an online TV platform that allowed video creators to fund their content with ad revenues.<sup>44</sup> Lastly, Atom Films was a broadband entertainment network offering original short subject films, animations, and series by independent creators.

---

<sup>38</sup> "25 Startups to Watch."

<sup>39</sup> Antone Gonsalves, "NBC, News Corp. Threaten Apple With Hulu," *InformationWeek*, October 29, 2007, <http://www.informationweek.com/news/showArticle.jhtml?articleID=202603029>.

<sup>40</sup> Mills, "Microsoft To Take On YouTube."

<sup>41</sup> Gonsalves, "NBC, News Corp. Threaten Apple With Hulu."

<sup>42</sup> Blip.tv press release, "Revision3 and Blip.tv Announce Content Promotion Partnership," November 14, 2007, <http://press.blip.tv/?p=3>.

<sup>43</sup> Kfir Pravda, "Blip.TV Financial Round, Less Viewers Than Veoh," *Pravda on Media and Technology*, June 6, 2007, <http://pravdam.com/2007/06/06/bliptv-financial-round-less-viewers-than-veoh>.

<sup>44</sup> Brightcove profile, <http://www.crunchbase.com/company/brightcove>.

## Online Video Consumers

In December 2006 *Time* magazine named “You” as its Person of the Year for seizing the reins of the global media, founding and framing the new digital democracy, working for nothing, and beating the pros at their own game (**Exhibit 2**). Alongside technology, consumers were at the heart of the online video market explosion.

User-generated content encompassed a variety of media formats, including video, audio, blogs, photos, reviews, and recommendations. Of these, video was the most visible and largest. Predictions for the growth of the online video market were staggering. The number of U.S. online video viewers was predicted to increase to 157 million in 2010, up from 108 million in 2006 (**Exhibit 3**). It was also estimated that 47 percent of all online video watched by U.S. consumers consisted of UGC (**Exhibit 4**).

The biggest segment of online viewers was the 25- to 34-year-old group at 24 percent, followed by 35- to 44-year-olds at 21 percent. Forty-four percent of viewers were 35 or older. In terms of employment and income bracket, 69 percent of all users were employed part- or full-time and 20 percent were students. Additionally, 45 percent of all online viewers had a household income of more than \$75,000. Researchers also found that 62 percent of the overall audience was male. Further, 81 percent of all users had broadband Internet connectivity (**Exhibit 5**).

Online viewers were further segmented into categories such as heavy, moderate, and light based on the amount of time spent watching videos. Sixty-five percent of heavy viewers were male, compared to 54 and 44 percent in moderate and light categories, respectively. The mean age of these segments was 33, 37, and 37 years old, and 40 percent, 54 percent, and 46 percent of these groups were married, respectively (**Exhibit 6**). Contrary to the stereotype of the lone Internet video viewer huddled in front of the computer, it was found that 57 percent of viewers watched videos with friends or family (**Exhibit 7**).

One of the biggest forces that seeded the online video market was consumers’ behavior and their desire to share information about the videos they watched. Fifty-seven percent of all consumers shared links to the videos they found online.<sup>45</sup> The most active participants in this phenomenon were 18- to 29-year-olds, with two out of three sharing video links, compared to 50 percent of users age 30 and older. Online video viewers also engaged in other participatory features such as rating videos (13 percent), posting comments (13 percent), posting video links online (10 percent), and uploading videos (13 percent).

In terms of video content, 37 percent of adult Internet users typically chose news-related programming when watching online. News video popularity was followed by other genres such as comedy (31 percent), music (22 percent), education (22 percent), and animation (19 percent) (**Exhibit 8**). Viewing preferences differed across age groups. Comedy and humorous videos ranked as the most popular genre among young adult viewers (18–29) at 56 percent and news videos were most popular among all other viewers. Young adults made up the majority of viewers of online music videos. However, there was not much variation among different age groups when it came to educational videos, which consisted of “do-it-yourself” and “how-to” videos. Details of various categories are presented in **Exhibit 9**.

---

<sup>45</sup> Mary Madden, Pew Internet and American Life Project, “Reports: Online Video,” July 25, 2007, [http://www.pewinternet.org/PPF/r/219/report\\_display.asp](http://www.pewinternet.org/PPF/r/219/report_display.asp).

Even though the online video market was undergoing rapid growth, there were some aspects that consumers did not like. For example, a 2007 ClipBlast! study found that nearly a third of respondents cited too many advertisements in online videos. Experiences such as difficulty in finding quality videos and too many videos to wade through were among other dislikes (**Exhibit 10**). The study also showed that online video users preferred to watch video on a bigger screen. Coincidentally, in 2006 only 3 percent of users in the United States had watched online video on a mobile device, although this percentage was expected to rise to 16 percent by 2011.

A 2007 survey by McKinsey found that content creators' desire for fame was their primary motivation for uploading videos.<sup>46</sup> Other motivations cited were the desire to help others and to have fun. In terms of profiting from their videos, some users were open to the idea of compensation sharing, but that was not a primary driver (**Exhibit 11**). The number of people who created content (i.e., created and posted photos, videos, music, etc.) was expected to rise to 95 million in the United States by 2011, up from 70 million in 2007.<sup>47</sup> A 2007 Deloitte & Touche study found a sliding scale of content-creation activity among different age groups, ranging from 56 percent among 13- to 24-year-olds to 25 percent among 61- to 75-year-olds (**Exhibit 12**).

## Financials and Online Advertising

The market for online video advertising was small but experiencing dramatic growth. According to *eMarketer*, worldwide UGC revenues (including online video, photo sharing, and social networking) would grow to \$8.175 billion in 2011 from their level of \$1.6 billion in 2007.<sup>48</sup> Growth rates would fluctuate but remain over 40 percent for the next five years. Online video was expected to obtain the largest share of these revenues (U.S. revenue of \$4.1 billion in 2011) (**Exhibit 13**). Other worldwide revenue projections for 2011 ranged from \$1.3 billion to \$1.6 billion, with U.S. revenue projections ranging from \$956 million to \$1.3 billion.

In October 2007 Google introduced a program to include advertising within YouTube videos. The program encouraged Web site developers and blog authors to embed a YouTube video player in their sites. This player would offer videos customized to a site's content. It would also contain two types of advertisements: skins and overlays (**Exhibit 14**). Skins surrounded the player and displayed an ad above the video, while overlays were semi-transparent messages running over the bottom section of the video. Revenues from the advertisements would be shared between the Web site, the creator, and Google. Google had not released specific details on the finances due to the early stage of the program.

YouTube had extensively tested numerous ad formats before announcing the program and was very optimistic. The ads had performed "five to ten times better versus traditional display advertising," said Shashi Seth, YouTube group product manager. YouTube was careful to place the ads so they would not disrupt the user experience. Ads could show up only after a video had played for fifteen seconds. They also overlaid only the bottom 20 percent of the video with 80 percent transparency. Ads were initially priced at \$20 CPM (cost per thousand views). Demographic targeting for videos was accomplished by differentiating among four viewer

---

<sup>46</sup> Jacques R. Bughin, "How Companies Can Make the Most of User-Generated Content," *McKinsey Quarterly*, August 2007.

<sup>47</sup> Paul Verna, "User-Generated Content: Will Web 2.0 Pay Its Way?" *eMarketer*, June 2007.

<sup>48</sup> David Hallerman, "Internet Video: Advertising Experiments and Exploding Content," *eMarketer*, November 2006.

characteristics: location, demographics, time, and genre. “There’s obviously a lot more opportunity . . . we’ll be making it more precise as time goes by,” said Seth.<sup>49</sup>

There were several concerns about this initiative. At the time of its announcement, only one hundred providers (including no major players) had agreed to have ads on their videos. One problem was that Web sites did not have control over which videos would be shown. This approach had limited acceptance, as Brightcove, another Internet video company, had discovered: “Any Web site that is medium to large typically doesn’t want arbitrary content showing up,” said Jeremy Allaire, Brightcove’s CEO. “The sites that take it are typically very small sites with limited traffic.”<sup>50</sup>

Another concern with the advertisements was their intrusiveness to the viewer experience. Earlier experiments with “preroll” advertisements had been lucrative but disliked by consumers. The *Wall Street Journal* noted, “Advertisers liked prerolls because they could use commercials already produced for TV in the spots, and Web publishers loved the high prices [this premium placement] commanded. But users grew annoyed by the intrusion, and Google’s YouTube and other video-sharing newcomers rose to popularity partly by ditching the format.”<sup>51</sup> Industry analysts anticipated that the new ad formats would be less intrusive, but it was too early to tell how consumers would respond.

### ***YouTube Advertising Revenue and Profitability***

As a division of Google, YouTube was not required to report independent financial data. Nonetheless, a number of analysts had calculated its revenue and profitability estimates. Revenue estimates varied dramatically and fluctuated based on assumptions about the key revenue drivers: the number of video streams, the percentage with advertising, and the revenue per ad (CPM). Estimates of current revenue ranged from \$55.8 million per year<sup>52</sup> to \$450 million per year.<sup>53</sup> Another projection pegged monthly revenue at \$7.5 million and yearly revenue at \$90 million (**Exhibit 15**).<sup>54</sup>

Longer-term projections for YouTube’s revenues also varied widely but were optimistic. A report by Mary Meeker from Morgan Stanley focused on long-term revenue for YouTube.<sup>55</sup> “What is important here, moreover, is not how much revenue YouTube can generate today, but how much it can generate in, say, five to ten years, when video is many times more popular, other ad formats are in use, and the company has many more content partners,” Meeker said. Her analysis pegged YouTube’s annual revenue between \$198 million and \$12.6 billion in 2012.

---

<sup>49</sup> Liz Gannes, “YouTube Rolls Out In-Video Ads,” *NewTeevee.com*, August 21, 2007, <http://newteevee.com/2007/08/21/youtube-rolls-out-in-video-ads>.

<sup>50</sup> Miguel Helft, “Google To Put YouTube Videos on Its Ad Network,” *New York Times*, October 9, 2007, <http://www.nytimes.com/2007/10/09/technology/09google.html>.

<sup>51</sup> Kevin J. Delaney and Emily Steel, “Are Skins, Bugs or Tickers The Holy Grail of Web Advertising?” *Wall Street Journal*, August 13, 2007, <http://online.wsj.com/article/SB118694625293695336.html>.

<sup>52</sup> Mitch Ratcliffe, “YouTube Wildly Profitable?” *ZDNet.Com Rational Rants*, October 2006.

<sup>53</sup> Henry Blodget, “Analyzing YouTube’s Revenue Potential,” *Silicon Valley Insider*, August 2007.

<sup>54</sup> Ashkan Karbasfrooshan, “YouTube IS Wildly Profitable—No Doubts About It,” *Hipmojo.com*, September 2007.

<sup>55</sup> Mary Meeker, “Technology/Internet Trends,” Morgan Stanley Web 2.0 Summit, October 2007.

## Cost Structure

YouTube's cost structure was also not well documented. Its costs were derived primarily from two sources: computer infrastructure and employee salaries. Computer infrastructure costs included data center hosting charges to store videos and network connectivity to transmit videos to viewers over the Internet. YouTube had outsourced its computer infrastructure to Limelight CDN (content delivery network), a data center and bandwidth provider for rich media content such as streaming video. YouTube's monthly fees to Limelight were rumored to be approximately \$1 million a month,<sup>56</sup> but some had estimated them as high as \$4 million a month.<sup>57</sup> Analysts had speculated that Google might sever YouTube's relationship with Limelight to reduce these costs.<sup>58</sup> Google kept its computer infrastructure in-house and already had the ability to host streaming video. Employee labor costs were less significant and estimated at \$3.6 million per year.<sup>59</sup>

## Outlook

In October 2007 the online video marketplace was in a state of explosive growth and change. Only a third of the U.S. population reported watching Internet video, but this percentage was expected to dramatically grow. Most consumers were still unwilling to pay for content beyond full-length movies and TV shows. Experimentation with ad-supported business models was rising and expected to drive broader consumption of Internet video in the coming years. Ad revenues were for the time being still very low, however, and many competitors were eager to stake a claim on the market.

It was still unclear which business models would ultimately prove viable. Google had made a bet that YouTube and Google Video would be a winning combination. While Google had an enviable track record, it had not scored many major successes comparable to its search engine in spite of its massive investment in new product development. Would Google be able to leverage its advertising expertise into the video market? Was the competition going to let Google run away with the advertising pot of gold? Would YouTube still be so attractive after it dealt with the legal issues? What strategy would Google and YouTube management need to put in place to maintain its preeminence in the next decade?

---

<sup>56</sup> Karbasfrooshan, "YouTube IS Wildly Profitable."

<sup>57</sup> Ratcliffe, "YouTube Wildly Profitable?"

<sup>58</sup> Rich Miller, "Google-YouTube: Bad News for Limelight?" *Data Center Knowledge*, October 2006.

<sup>59</sup> Paul Kedrosky, "YouTube: Notes to Self," *Infectious Greed*, June 6, 2006, [http://paul.kedrosky.com/archives/2006/06/06/youtube\\_notes\\_t.html](http://paul.kedrosky.com/archives/2006/06/06/youtube_notes_t.html).

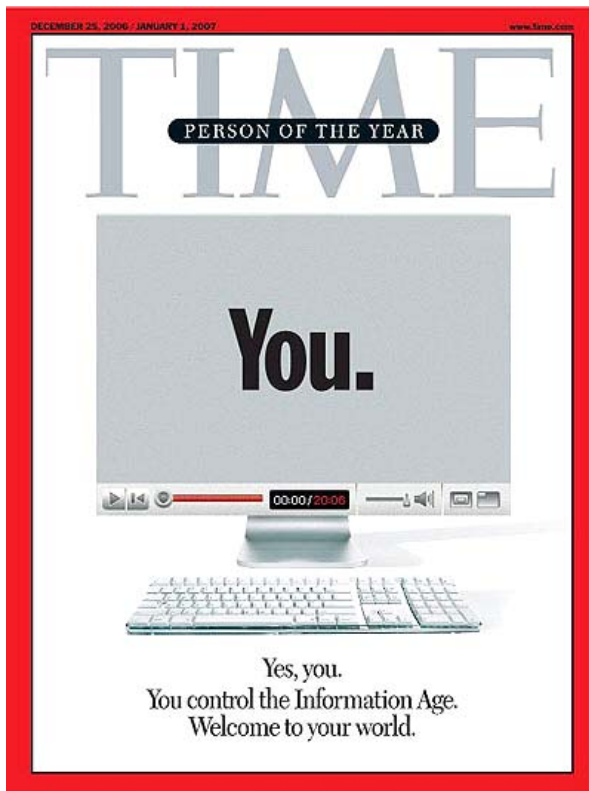
**Exhibit 1: Unique Visitors for Online Video**

**Top Video Sites for August 2006 and 2007 (U.S., Home and Work)**

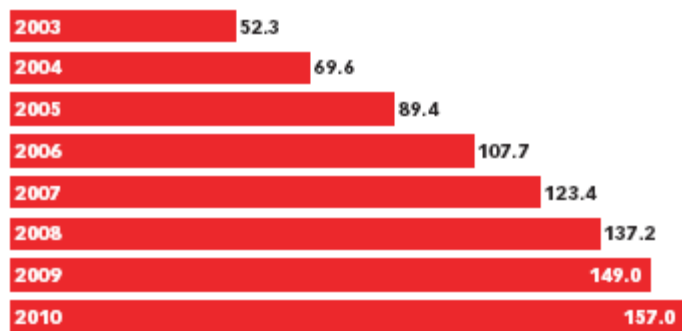
Site	Aug. 2006 (in thousands)	Aug. 2007 (in thousands)	Percentage Change (%)
YouTube	34,039	56,453	66
vids.myspace.com	17,923	16,759	-6
Google Video	13,483	14,450	7
AOL Video	NA	13,632	NA
MSN Video	11,984	12,486	4
Yahoo! Video	5,958	11,987	101
Metacafe	2,822	4,151	47
Break.com	2,926	3,954	35
Veoh	663	2,958	346
Atom Films	1,102	1,422	29

Source: Nielsen/NetRatings, as cited on <http://mashable.com/2007/09/13/nielsen-august>.

**Exhibit 2: Time Person of the Year**



Source: Lev Grossman, "Time's Person of the Year: You," *Time Magazine*, December 13, 2006, <http://www.time.com/time/magazine/article/0,9171,1569514,00.html>.

**Exhibit 3: U.S. Online Video Viewers, 2003–2010 (in millions)**

Note: Ages 3+; online video viewer defined as an individual who downloads or streams video (content or advertising) at least once a month.

Source: David Hallerman, "Video Advertising Online: Spending and Audience," *eMarketer*, July 2007.

**Exhibit 4: User-Generated Online Video Content as a Percentage of Total Online Video Content Watched in the United States, 2006 and 2010(f)**

Source: "User-Generated Online Video: Competitive Review and Market Outlook," *Screen Digest*, January 2007.

**Exhibit 5: Demographic Profile of U.S. Online Video Viewers, January 2006 (%)**

	Percentage of Respondents
<b>GENDER</b>	
Male	62
Female	38
<b>AGE</b>	
12–17	15
18–24	17
25–34	24
35–44	21
45–54	15
55–64	6
65+	2
<b>EMPLOYMENT</b>	
Employed part/full time	69
Retired	3
Student	20
Homemaker	3
Unemployed	4
Household income of \$75,000+	45
<b>RACE/ETHNICITY</b>	
White	72
African/American	11
Hispanic/Latino	10
<b>TYPE OF ACCESS TECHNOLOGY</b>	
Broadband	81
Dial-up	19
Plan to switch to broadband in next 12 months	47

Source: Arbitron/Edison Media Research, "Internet and Multimedia 2006: On-Demand Media Explodes," May 2006.

**Exhibit 6: Demographic Profile of U.S. Online Video Viewers, February 2006 (%)**

	Heavy Viewers	Moderate Viewers	Light Viewers	Non-Viewers But Will This Year	Non-Viewers and Won't This Year
<b>GENDER</b>					
Male	65	54	44	41	40
Female	35	46	56	59	60
Age (mean)	33 years	37 years	37 years	38 years	39 years
<b>MARITAL STATUS</b>					
Married	40	54	46	61	50
Single	41	23	25	14	18
Committed	11	11	13	11	10
Divorced	6	9	13	11	17
Household income \$100,000+	11	7	7	4	7
<b>SOCIOECONOMIC STATUS<sup>a</sup></b>					
High	17	17	20	8	11
Middle	50	52	44	45	49
Low	33	32	36	47	39
<b>HIGH-SPEED INTERNET ACCESS LOCATION</b>					
Home	85	79	72	59	61
Work	86	83	81	73	71

<sup>a</sup> Combined measure based on income, education, and occupation.

Note: Heavy = weekly or more; Moderate = monthly but less than weekly; Light = less than monthly

Source: Online Publishers Association (OPA), "From Early Adoption to Common Practice: A Primer on Online Video Viewing," February 2006.

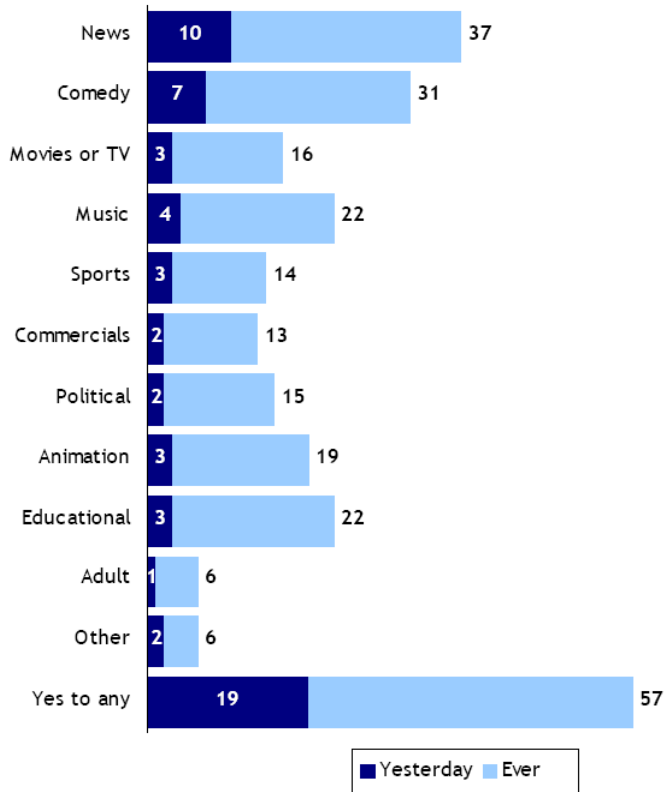
**Exhibit 7: How Video Viewers Engage in Use of Online Video (%)**

	Total	Men	Women	Age 18–29	Age 30–49	Age 50–64
Receive video links	75	75	75	76	77	71
Send video links to others	57	59	54	67	55	45
Watch video with others	57	58	57	73	58	34
Rate video	13	15	10	23	11	4
Post comments about video	13	15	10	25	9	5
Upload video	13	16	9	20	12	5
Post video links online	10	12	9	22	7	2
Pay for video	7	8	6	10	7	3

Note: Margin of error is ±4% for all online video viewers (n=800). Margins of error for subgroups range from ±5% for male video viewers to ±8% for viewers ages 50–64. Video viewers ages 65 and older are not included in this table due to their small numbers (n=84).

Source: Pew Internet and American Life Project Tracking Survey, February 15–March 7, 2007. Taken from Mary Madden, Pew Internet and American Life Project, "Reports: Online Video," July 25, 2007, [http://www.pewinternet.org/PPF/r/219/report\\_display.asp](http://www.pewinternet.org/PPF/r/219/report_display.asp).

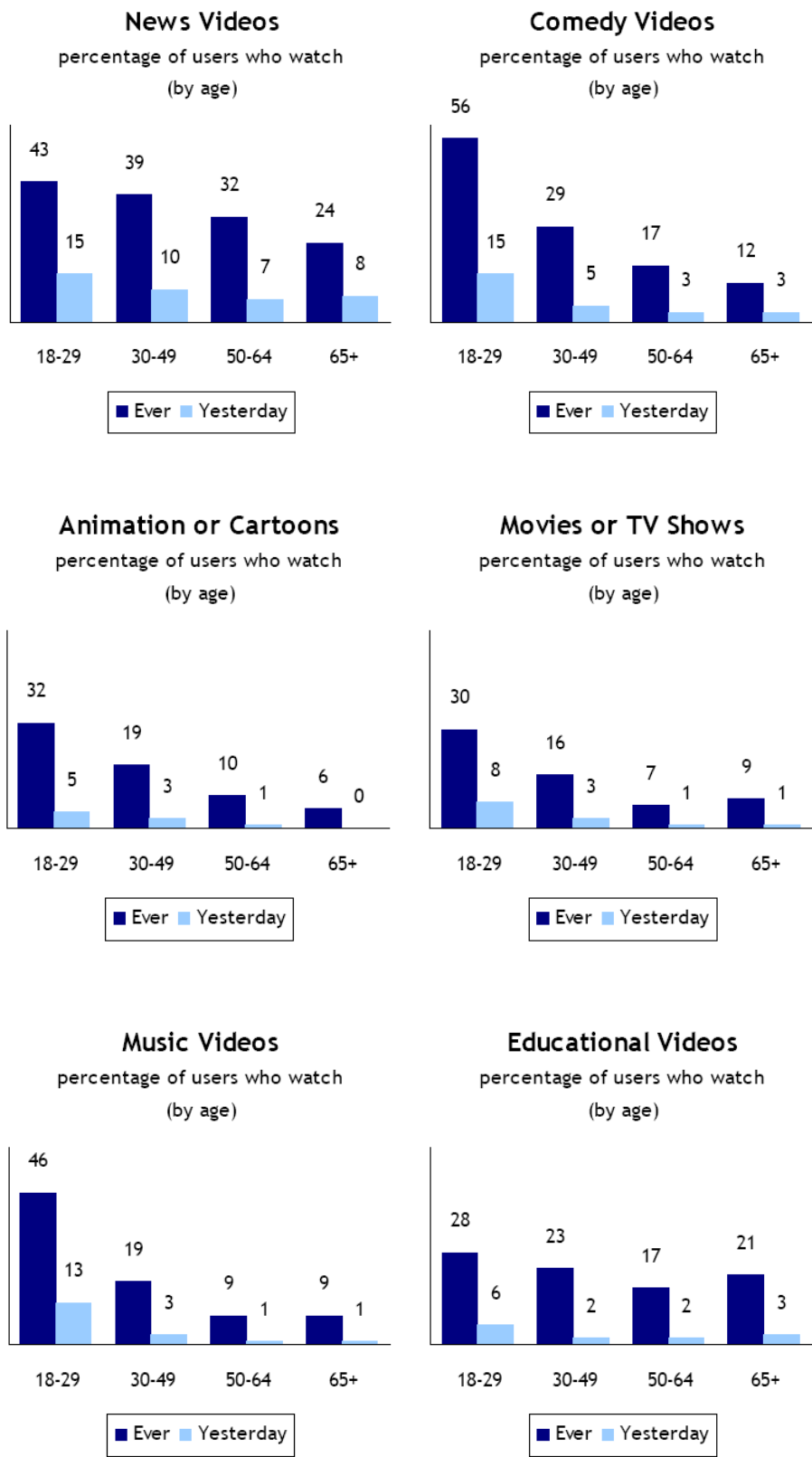
**Exhibit 8: Types of Videos Watched Online (% of adult Internet users)**



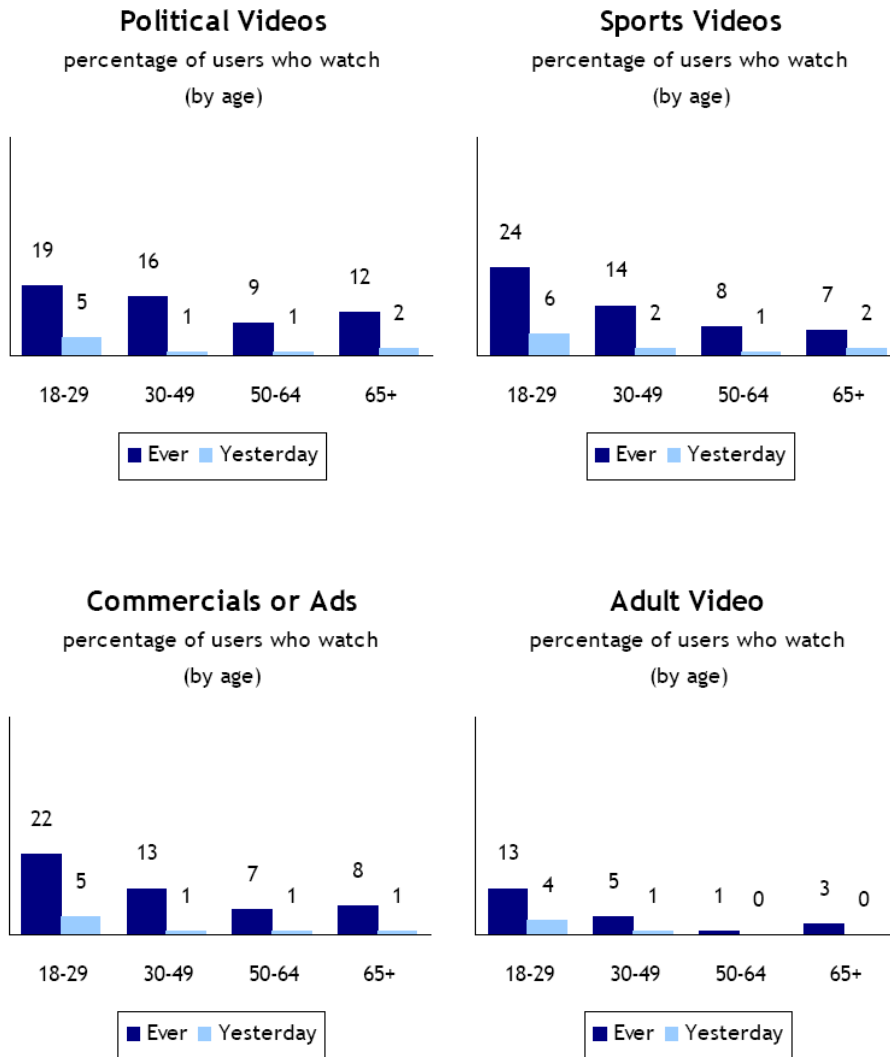
Note: Margin of error is ±3% for all adult Internet users (n=1,492).

Source: Pew Internet and American Life Project Tracking Survey, February 15–March 7, 2007. Taken from Mary Madden, Pew Internet and American Life Project, "Reports: Online Video," July 25, 2007, [http://www.pewinternet.org/PPF/r/219/report\\_display.asp](http://www.pewinternet.org/PPF/r/219/report_display.asp).

**Exhibit 9: Online Video Viewing by Age and Type**



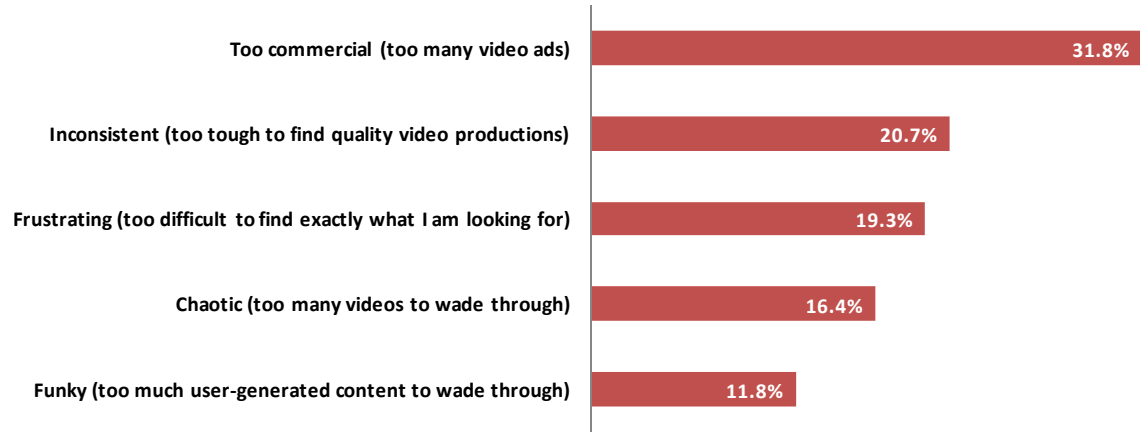
**Exhibit 9 (continued)**



Note: Margin of error is ±3% for all adult Internet users (n=1,492). Margins of error for subgroups range from ±4% for video viewers ages 30–49 (n=615) to ±8% for viewers ages 65 and older (n=202).

Source: Pew Internet and American Life Project Tracking Survey, February 15–March 7, 2007. Taken from Mary Madden, Pew Internet and American Life Project, "Reports: Online Video," July 25, 2007, [http://www.pewinternet.org/PPF/r/219/report\\_display.asp](http://www.pewinternet.org/PPF/r/219/report_display.asp).

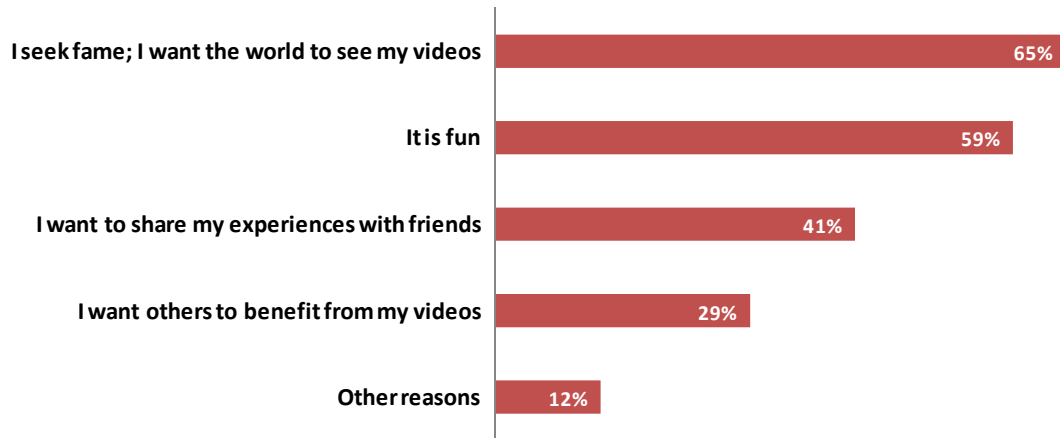
**Exhibit 10: Dislikes about Online Video**



Note: n=1,000 ages 18+.

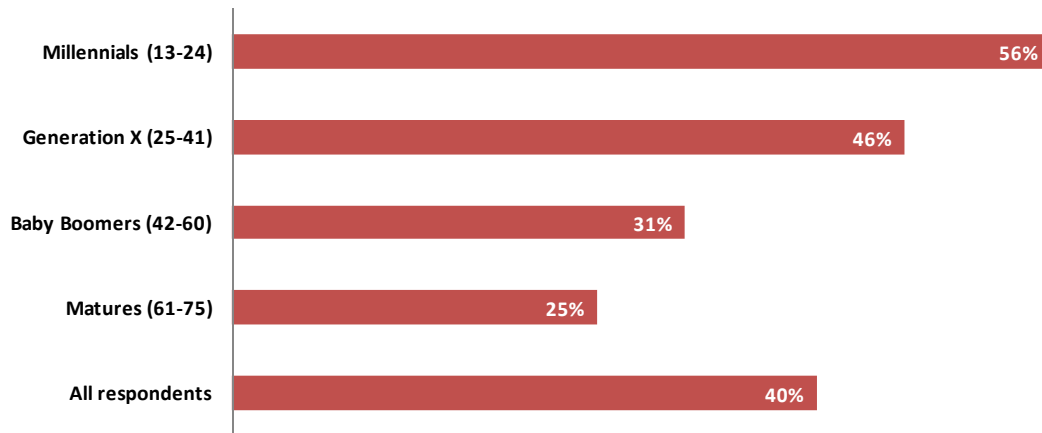
Source: Synovate commissioned by ClipBlast!, February 2007.

**Exhibit 11: Motivations for Uploading Videos**



Source: McKinsey survey of 573 users of four leading online video-sharing sites in Germany, October 2006.

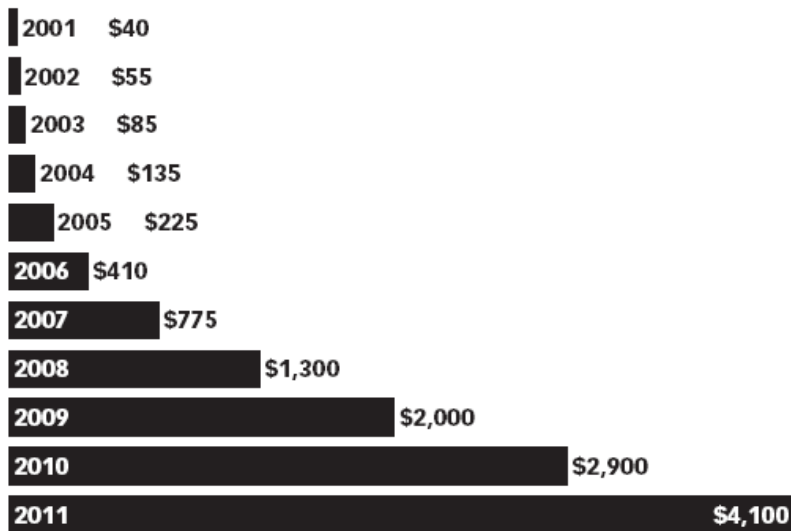
**Exhibit 12:** U.S. Internet Users Who Create User-Generated Content, February–March 2007



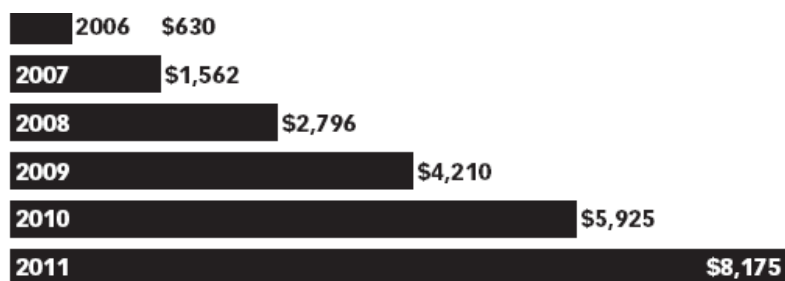
Note: User-generated content signifies creating own entertainment through editing own photos, movies, and/or music.

Source: Deloitte & Touche USA LLP, “State of the Media Democracy,” conducted by Harrison Group, provided to eMarketer, April 16, 2007.

**Exhibit 13A:** Online Video Advertising Spending, 2001–2011 (in millions)



Source: Paul Verna, “User-Generated Content: Will Web 2.0 Pay Its Way?” eMarketer, June 2007.

**Exhibit 13B: Worldwide User-Generated Content Advertising Revenues, 2006–2011 (in millions)**

Note: Includes ad revenues at user-generated video sites (e.g., YouTube), photo-sharing sites (e.g., Photobucket), and social networking sites (e.g., MySpace, Facebook).

Source: Paul Verna, "User-Generated Content: Will Web 2.0 Pay Its Way?" *eMarketer*, June 2007.

**Exhibit 13C: U.S. User-Generated Video Streams and Associated Advertising Revenues, 2006, 2007, and 2011**

	Streams (\$ in billions)	Ad Revenues (\$ in millions)
2006	12.4	216
2007	28.5	515
2011	49.0	956

Note: Includes all video viewership and associated advertising revenues from online videos served by user-generated online video sites.

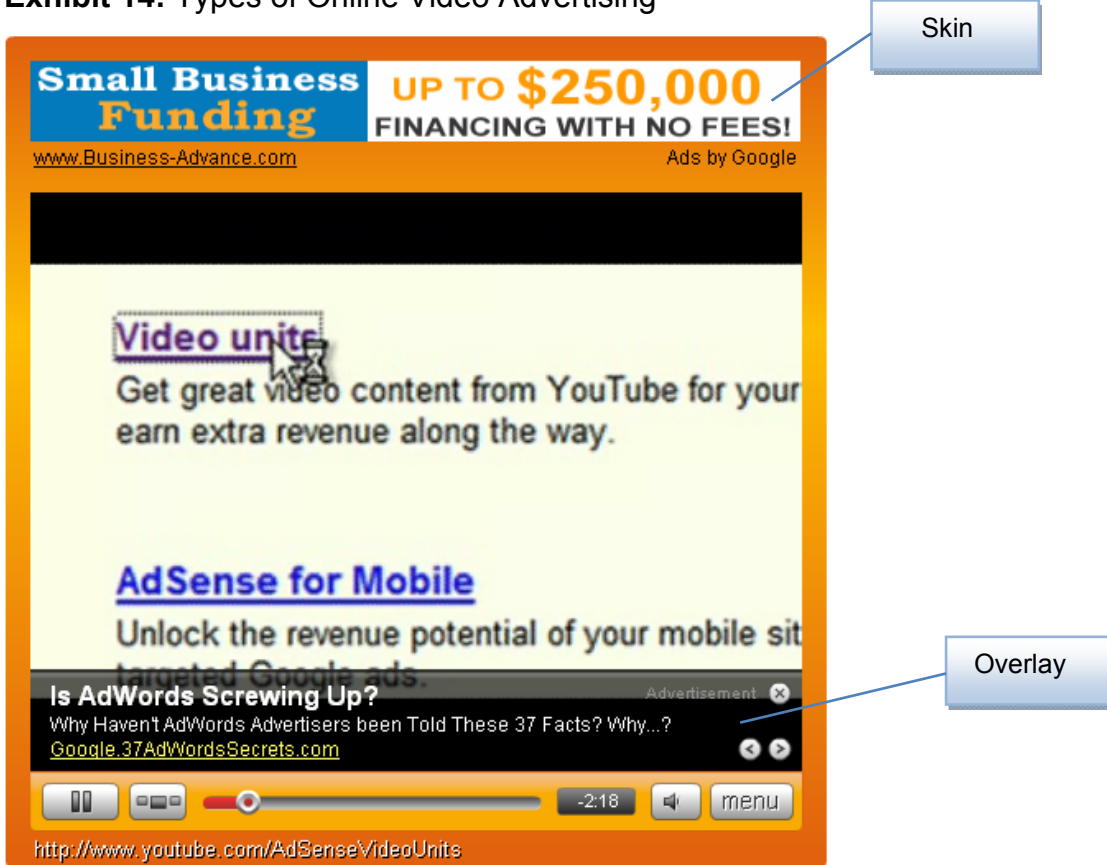
Source: Paul Verna, "User-Generated Content: Will Web 2.0 Pay Its Way?" *eMarketer*, June 2007.

**Exhibit 13D: U.S. Online Video Advertising Spending Growth and Share, 2006–2010 (% increase vs. prior year and % of total online ad spending)**

	Percentage Change (%)	Share of Internet Total (%)
2006	82.2	2.6
2007	89.0	4.2
2008	67.7	6.0
2009	53.8	8.5
2010	45.0	11.5

Source: David Hallerman, "Internet Video: Advertising Experiments and Exploding Content," *eMarketer*, November 2006.

**Exhibit 14:** Types of Online Video Advertising



**Exhibit 15A:** Estimated Current YouTube Revenue

Total video streams	100,000,000	Total video streams per day	
Streams on YouTube	66,666,666	At least 2/3 of videos seen on YouTube, rest embedded on other sites	
Page impressions	66,666,666	1 video per page, 1:1 ratio	
Ad impressions	66,666,666	1 ad per page, 1:1 ratio	
Pages sold at \$5 CPM	3,333,333	5%	Revenue @ \$5 CPM = \$16,667
Pages sold at \$2 CPM	6,666,667	10%	Revenue @ \$2 CPM = \$13,333
Pages sold at \$1 CPM	23,333,333	35%	Revenue @ \$1 CPM = \$23,333
Pages sold at \$0.75 CPM	23,333,333	35%	Revenue @ \$0.75 CPM = \$17,500
Pages sold at \$0.50 CPM	6,666,667	10%	Revenue @ \$0.50 CPM = \$3,333
Pages sold at \$0.25 CPM	3,333,333	5%	Revenue @ \$0.25 CPM = \$833
			Subtotal revenue from display ads \$75,000
			Subtotal revenue from homepage sponsorship ads \$175,000
			Total daily revenue for YouTube from advertising \$250,000
			Total monthly revenue for YouTube from advertising \$7,500,000

Source: Ashkan Karbasfrooshan, "YouTube IS Wildly Profitable—No Doubts about It," *Hipmojo.com*, September 2007.

**Exhibit 15B: Estimated Short- and Long-Term YouTube Revenue**

Now	Conservative		Expected		Aggressive
Monthly video streams <sup>a</sup>	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Percentage with ads <sup>b</sup>	10%	20%	30%	40%	50%
Videos with ads	200,000	400,000	600,000	800,000	1,000,000
Percentage of ads watched <sup>c</sup>	33%	40%	50%	66%	75%
Total ads watched (in thousands)	66,000	160,000	300,000	528,000	750,000
CPM	10	20	30	40	50
Monthly revenue	\$660,000	\$3,200,000	\$9,000,000	\$21,120,000	\$37,500,000
Annual revenue	\$7,920,000	\$38,400,000	\$108,000,000	\$253,440,000	\$450,000,000

<sup>a</sup> Based on Comscore 1.7 billion in May.

<sup>b</sup> Ads currently only on partner videos.

<sup>c</sup> 75% in recent tests.

Five Years From Now	Conservative		Expected		Aggressive
Monthly video streams <sup>a</sup>	10,000,000	20,000,000	30,000,000	40,000,000	50,000,000
Percentage with ads <sup>b</sup>	50%	55%	60%	65%	70%
Videos with ads	5,000,000	11,000,000	18,000,000	26,000,000	35,000,000
Percentage of ads watched <sup>c</sup>	33%	40%	50%	55%	60%
Total ads watched (in thousands)	1,650,000	4,400,000	9,000,000	14,300,000	21,000,000
CPM	10	20	30	40	50
Monthly revenue	\$16,500,000	\$88,000,000	\$270,000,000	\$572,000,000	\$1,050,000,000
Annual revenue	\$198,000,000	\$1,056,000,000	\$3,240,000,000	\$6,864,000,000	\$12,600,000,000

<sup>a</sup> Based on Comscore 1.7 billion in May.

<sup>b</sup> Ads currently only on partner videos.

<sup>c</sup> 75% in recent tests.

Source: Henry Blodget, "Analyzing YouTube's Revenue Potential," *Silicon Valley Insider*, August 2007.