

February 2006

ENTERTAINMENT COMPUTING

Google Becomes an Entertainment Company

Michael Macedonia

Thirty years have passed since Daniel Bell published *The Coming of the Post-Industrial Society* (Harper Colophon, 1976), in which he predicted a vastly different world—one that would rely on an economics of information as opposed to the economics of goods that had existed up until then.

In the era in which Bell made his prediction, most Americans were happy with four television channels and 8-track stereo. Back then, \$100 Casio calculators offered the most sophisticated consumer computing device available, AT&T was the universal phone company, and only the rich had phones in their cars. Back then, the Internet, World Wide Web, mobile phone, and iPod had yet to be conceived. Video game consoles were only three years old, and PCs were a novelty cobbled together by hobbyists

(http://en.wikipedia.org/wiki/Daniel_Bell).

Two brilliant young men, Steve Jobs and Steve Wozniak, changed all this when they founded Apple Computer and gave the information society the first computer for the masses, one diametrically opposed to the mainframe-centric, terminal-saturated world of IBM and AT&T. Computing has changed dramatically since then, but the vision shared by Bell and Apple's founders continues to dramatically influence our lives.

Ironically, Apple still pushes the message of individuality portrayed in iPod ads while developing powerful back-end storage and distribution services for its video and music download business.

The Internet Age has brought about new competition and transformed old enemies into team members. IBM partnered with Apple for 10 years to supply the PowerPC chip for the modern Macs, only to be supplanted in 2006 by former Apple nemesis Intel and its Pentium CPU.

Apple's relationship with Microsoft has been a moody one for the past 25 years, as both partner and competitor. Their latest battlefield has been digital rights management, with Microsoft selling its DRM solution as part of its variety of operating systems and Apple using its DRM as a method for channeling users to its iTunes entertainment distribution service.

Challenging iTunes

The Internet has created new competitors for Apple that provide a study in contrasts. The biggest of the new entrants, Google,

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describes itself as follows:

Google's innovative search technologies connect millions of people around the world with information every day. Founded in 1998 by Stanford Ph.D. students Larry Page and Sergey Brin, Google today is a top web property in all major global markets.

Google's targeted advertising program provides businesses of all sizes with measurable results, while enhancing the overall web experience for users.

Google is indeed a top property worth as much as \$131.9 billion, topping IBM's market value of \$131 billion. By comparison, with 329,000 employees, IBM is now the world's largest computer services company.

Google's leadership includes not only Larry Page and Sergey Brin, who both have Master's degrees from Stanford, but also a former Sun alumnus, CEO Eric Schmidt. Unlike college dropouts Steve Jobs, Michael Dell, and Bill Gates, Schmidt holds a PhD in computer science from the University of California at Berkeley (<http://www.google.com/intl/en/corporate/execs.html>).

Until recently, Google pursued a business strategy markedly different from Apple's, which developed a DRM infrastructure focused on the iPod and its iTunes software to grow its business as a content distributor. Google has relied on delivering user-targeted paid advertising to personal computers in exchange for free content delivered by lightweight Web clients that interface its powerful search engines via its massive server farms. Advertising accounted for most of its \$1.5 billion profit in 2005.

However, in its quest for new revenue and growth, it's becoming apparent that Google's strategy is morphing rapidly to adapt to changing market conditions.

Google Video

At the Las Vegas Consumer Electronics Show in January 2006, Google announced the planned opening of the Google Video Store, the first open video marketplace where consumers can buy and rent a wide range of video content from a major television network, a professional sports league, cable programmers, independent producers, and film makers. The collection of videos will include prime-time and classic hits from CBS and a full slate of NBA games from this season. Other content being offered includes performances from the past, music videos from Sony BMG, and Charlie Rose interviews, as well as news and historical content from ITN, with new titles being added daily.

Consumers can view Google Video with a new player they can download for free from any playback page. It offers all the traditional playback options as well as a thumbnail navigation feature that lets users browse through an entire video, or single frames, with a simple mouse click. Google already has 3,000 music videos and 300 television programs for sale.

iPod and Sony Playstation Portable users will also be able to download and watch any non-copy-protected content from Google

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Video's store. Although content will be available throughout the world, the option to purchase premium content will be available only in the US.

Google and Intel also announced plans to work together to bring Google Video to the new Intel Viiv technology platform (www.intel.com/pressroom/archive/releases/20060105corp_d.htm). According to the press release, this planned collaboration is intended in theory "to give consumers an easy way to search, manage, and consume the huge amount of video information available on the Internet from the comfort of their couch."

According to Larry Page, Google's cofounder and products division president, "Google video will let you watch lots of high-quality video on the Web for the first time. You can search and browse, and we make it fast and easy for you to watch." He also noted that "For video producers and anyone with a video camera, Google Video will give you a platform to publish to the entire Google audience in a fast, free, and seamless way."

Liberal DRM, Flexible Pricing

Google only announced plans for paid, DRM-enabled video on PCs running Windows XP, but it plans to differentiate its service from Apple in several ways. Apple charges \$1.99 for each video download and 99 cents for each song downloaded from its iTunes store. With Google's marketplace, content suppliers can name their own price, from zero on up. The content owners who charge for video downloads must share 30 percent of the revenue with Google.

Thomas Hawk, a digital media and technology writer, notes that "the big Google distinction between how they will offer their pay downloads versus the other guys' is that Google is going to actually let you download your paid download files on to your computer and then allow you total control over the file. Want to copy it to your laptop? No problem. To your portable device? Hey, it's your file, you paid for it, why not" (<http://thomashawk.com/2006/01/ces-day-four-google-video-kinder-more.html>).

So what changed for Google? Obviously, the company's dependence on advertising sales put its growth at risk to general economic conditions and would soon encounter diminishing returns, so its portal and search service needed to bring in new revenue streams. But Google also needed to get in before the business became so attractive it would have to compete against a plethora of media distribution giants who are slowly recognizing that the traditional music and movie businesses are dying.

DVD's Indian Summer

For Apple, the digital music business is good. In the seven days between Christmas and the 2006 New Year, US customers downloaded 20 million tracks from firms like iTunes and Napster, according to tracking firm Neilson SoundScan. This figure more than doubles the 9.5 million record set the previous week, and it's three times the figure for the same period in 2004.

This contrasts with the traditional music industry, which saw CD sales continuing a long decline. US CD sales fell 3.5 percent to

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275.3 million in the first half of 2005, according to the Recording Industry Association of America, with revenue down 4.4 percent to \$4.47 billion.

The theatrical movie business also had a terrible year, with box-office receipts in the US and Canada dropping roughly 5 percent from a year earlier, to \$8.9 billion. Yet DVD sales remained strong, setting a torrid pace in the US for 2005, when they jumped 5 percent to \$16.3 billion, according to Digital Entertainment Group.

Why the upswing? Three interrelated factors are key. First—shades of Daniel Bell—information goods are more valuable than material goods, but only if their distribution can be controlled. DVDs and Apple's downloads are copy protected, CDs are not. No DRM means no control.

Second, even though a movie ticket costs half the price, consumers who purchase DVDs have a major advantage over those who see films in a theater. Purchasing DVDs lets them watch older movies and TV programs unavailable on the big screen at their convenience.

The third factor is the kicker. US broadband penetration among active Internet users neared 65 percent in November 2005 (www.websiteoptimization.com/bw). The cost of distributing music files via the Internet in terms of bandwidth and effort is nil compared to manufacturing and shipping the CDs found in retail stores.

Until 2005, the majority of Internet users did not have the bandwidth necessary for moving hundreds of megabytes of video. Apple estimates that downloading a one-hour TV show will require only 10 to 20 minutes over a broadband Internet connection. With broadband, consumers will be able to search for, pay, and retrieve video from the vast libraries that Google and Apple maintain. Who needs a *Friends* DVD when they can download episodes to an iPod?

This year may be a dramatic tipping point not only for computing and entertainment, but even more so for broadband wireless.

According to the IDC research firm's projections, by 2009, more than 30 million wireless subscribers will be watching commercial TV and video on a handheld device. The US was home to 40 million multimedia cell phones in September 2005, up from 20 million in January of the same year, according to Horizon's research. The Strategic Alliance research firm estimates that more than 25 percent of the 279 million digital TV devices sold in 2010 will be cell phones (www.tvweek.com/news.cms?newsId=9141).

All this may be why Google quietly bought Reqwireless for an undisclosed sum in the hopes of improving its various software products for cell phones and PDAs. Reqwireless used to sell packages for viewing e-mail and HTML on mobile products and, in particular, worked on devices running Java. Google already provides cell phone services such as maps, e-mail, and search applications that can be delivered to mobile devices (www.theregister.com/2006/01/10/mobile_can_goog).

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Welcome to the postindustrial society.

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