



**YOUTUBE ON THE BOOB TUBE:  
DEVICES AND SERVICES BRING THE INTERNET  
STRAIGHT TO TELEVISION**

*The rise of video on the Internet created a new challenge for television producers, and they eventually responded by making programs available on their own Web sites as well as on sites operated by independent distributors. Now, distributors are sending Internet content back to the television, but television watching of Internet content will come with special consumer capabilities, including the active ability to access and control the content watched on the once denounced passive “boob tube.”*

*New services will allow consumers to watch Internet video on their televisions. These new systems require special hardware and even some luck in connecting devices in one part of the house. Eventually, this hardware will go away, and customers will be free to watch on their TVs whatever comes over the Internet and will also be able to stream or download additional content from special distribution Web sites. This will complete the integration of television, with its larger picture and higher resolution, into the Internet digital environment, with its expanded access to a world of content and its enhanced control of how that content is used.*

**From Viewer to User**

Televisions are part of the furniture in 97 percent of American homes, and 65 percent of those homes subscribe to either cable or satellite services, meaning they receive, on average, 160 channels of programming. Typically, homeowners have situated their TVs so that an entire family can view the set together, even though

individual bedrooms may have additional sets so that no family member misses his or her favorite program. Some homes even have a late-twentieth-century creation: the television (*a.k.a.* “media”) room. Parents use televisions as baby-sitting devices, adults use them as alternatives to the movie theater and adolescents use them as resources for socializing content (*e.g.*, fashion, music and celebrities). Americans are habituated to the

television, and in the past year, they increased their monthly TV viewing by an average of four hours, meaning that the average American now “watches” television more than 127 hours each month. (*Multichannel News*; 7/14/08)



The Internet was, of course, going to undermine television, condemning it to the dustbin of history, much as television itself was going to undermine the movie industry. But, movies came to be a critical programming component of television, just as more recently, television programs have become a popular addition to online “programming.” Yet the television-to-the-Internet transition has come with one critical difference from the earlier movie-to-television transition: enabled consumers.

We raised this critical difference after we observed how the Internet was converting individuals from being television “viewers,” who could watch only shows that programmers put before them, to Internet “users,” who could use technology to create their own media environment. On the whole, television viewing is a passive exercise, while using the Internet is an active exercise. Internet technology was teaching Americans to become active by exploiting the medium’s capabilities – most critically, unlimited **access** to a wide array of content and expansive **control** over how that content can be used (see

“Viewers Become Users: Consumers’ Changing View of Media,” **IF 2307**, 3/15/02).

Over the years, consumers have been slowly eating away at the television programmers’ control of their viewing habits. A proliferation of channels (through cable and satellite distribution) made switching away from unwanted programs easier; the remote control helped “eliminate” commercials; video recorders and their more recent iteration, digital video recorders, enabled audience members to record their favorite programs for viewing at a more convenient time; and video-on-demand as well as pay-per-view gave customers immediate gratification for selected movies, some television shows and even special events.



But the Internet went beyond those enhancing capabilities and gave the user the ability to select from a world’s worth of content and to read, watch, listen to and edit that content as they wished. It offered access to just about everything digital, and enabled users to control what, when, where and how they read, watched, listened to or edited the many things that they could now access.

Perhaps because of TV’s ubiquity and a resulting confidence that scheduled programming would always be popular, Big Media, the network giants in the television industry, were slow to recognize the critical shift in consumer behavior that the Internet was causing and were even slower with a strategic response. The

consumer's lackluster interest in Microsoft's Web TV suggested to those "media giants" that the Web was not really challenging television programming.

But the wild popularity of Internet video revealed the error of industry thinking. For example, in May of this year, 119 million discrete online visitors watched 7.5 billion video streams. Clearly, watching videos on the Internet had become significant. (*Multichannel News*, 7/14/08)

And so, Big Media responded. When broadband connections reached a critical mass, networks were able to stream their video content online rather than just offer it for download, which remained an expensive challenge to their copyright protections. Studios started offering streamed programs to online distributors for a fee and the same programs on their own Web sites with advertisements attached. All of this was directed at the computer-based user (see "Big Media Online: From Trying Anything and Everything to Developing a Market Strategy," **IF 2826**, 11/9/07).

Now, television programs are headed, well, back to the television. The next communications industry scramble will revolve around blending the massive access and expansive control that Internet technology provides with the higher resolution and larger screens of home-centric televisions. That shift has started.

## Watching TV Again, But...

NBC is using the World Wide Web to stream **2,200 hours** of video coverage from the Beijing Olympics, up from a mere **two hours** during the Turin Winter Games **two years ago**. Nearly all of the coverage will be live, although the network said that marquee events, such as swimming and gymnastics, will only become available on NBCOlympics.com one hour after the network broadcasts the delayed coverage on NBC television. (*Television Week*, 7/28/08)

NBC is joining with the National Football League (NFL) to stream 17 league games this coming season. During these online presentations, audience members will be able to select from four unique camera angles at any given moment, switching as frequently as they wish. Streaming live events over the Internet has become more popular lately, as CBS streamed parts of the National Collegiate Athletic Association's March Madness tournament this past spring and Major League Baseball started streaming some games on its own Web site. (*Wall Street Journal*, 7/26/08)

As audiences spread their interests across different media and articulate their preferences, content providers are going to make their products available more readily across the spectrum of media opportunities. Thus, recent actions to send online streams back to the television have some resonance with the user mindset.

◆ In June, Sony and Google introduced services that enable content providers to send programming from the Internet to the television. Sony will utilize its PlayStation 3 to stream movies to the TV, starting this fall with Sony Pictures' "Hancock." Google will also use Sony's PlayStation 3 to stream video from its YouTube site to television. (*Television Week*, 7/6/08)

◆ Amazon.com signed a deal with Sony to make the online retailer's vast inventory of 40,000 movies and television programs available for streaming over the Internet directly to Sony's Bravia high-definition television set. A \$300 Sony Bravia Internet Video "tower" will connect users to the Amazon Video on Demand site. The companies also announced that future Bravia televisions will have the Internet-connection capability embedded in the sets, thereby eliminating the



"Good news, dear. Our phone company is giving us 30 more channels we won't be watching."

current need to purchase the \$300 tower. (*International Herald Tribune*, 7/18/08)

These new services join existing Internet-to-television ventures such as Netflix's Roku set-top box, which downloads and streams that retailer's video catalogue, Microsoft's Xbox Live, which allows its 12 million subscribers to download or stream movies on standard or high-definition televisions, and AppleTV, which lets consumers display programs and movies purchased from the Apple online store. DirecTV introduced a service to download video via the Internet directly to a digital video recorder (DVR) for viewing later, and Comcast uses Fancast.com, its Web site, to sell or rent movies and TV shows to subscribers. These last two offerings do not, at the moment, stream video straight to the television. (*Investor's Business Daily*, 7/16/08; *Television Week*, 7/6/08; *Multichannel News*, 7/14/08)

All these different offerings come with a bundle of problems. To put streamed content on their TVs, consumers must now purchase additional hardware (e.g., Xbox, Roku set-top box), then place it near the TV for plug-and-play ease and then find the programming that they want to buy using whatever broadband Internet connection they have. Meanwhile, companies providing these new services have problems of their own, such as developing a profitable business model, handling traditional copyright issues and formatting to eliminate device incompatibility – each service currently retains proprietary control over the customer and product. (*Television Week*, 7/6/08)

The range of problems and capabilities of video-to-television systems gives the whole enterprise the appearance of a business in transition – transitioning from a system offering online, downloaded videos for computers to one providing online, streaming videos for televisions. At present, the transition is not complete. The ultimate system will not require special equipment, will likely embed the necessary conversion technology in the TV set (as Sony Bravia has already promised), will surrender control of the content to consumers and, to the extent that connectivity is an issue, will depend on high-speed wireless systems in the house. It will not have competing proprietary systems that keep consumers from accessing

whatever they want, and it will prosper when even wider and faster broadband (e.g., fiber optic lines) prevails. More critically, those offering the service will eventually need to store the customer's video library, necessitating massive server-farm capacity (as Amazon has already started offering).



## End of the Broadcasters' World?

The shift back to the television for online video comes at a critical moment for both television manufacturers and studio producers. In a survey by Ipsos Media, the percentage of video consumed via TV by those who also watch video online dropped from 75 percent in February 2007 to 70 percent one year later. While such a decline comes close to falling within the study's margin of error, it could nonetheless be signaling trouble for an industry such as broadcasting that depends almost exclusively on cable and satellite systems for content distribution. (*Investor's Business Daily*, 6/23/08)

More problematic for such an industry, however, is the way viewers are "watching" TV programs. Those between 18 and 34 years of age watched 287 minutes of online video in April, up from 175 minutes one year earlier. But the average length of the videos they

watched was a mere 2.8 minutes – that is, when they watched a TV program via the Internet, they looked at only a short clip or scene from it. This practice exemplifies the effects of Internet “users” **accessing** whatever they want, when they want it, and **controlling** its use by recutting the program themselves, all done to programs that television “viewers” once tended to watch in their entirety. (*Variety*, 6/23/08)

The television industry must service the user mindset that has emerged in the Internet age, and that starts by making programs accessible via the Internet. When we last visited this topic, networks and producers, who had made their content available on a time-shifted basis for television (via DVRs *et al.*), were starting to make their content accessible to computer or mobile users via the Internet. Most of those services are being supported by either subscription fees from consumers or advertising fees from the distributors.

The next step in the process of integrating television sets seamlessly into the new digital “user” environment is to send programs back to TV and add Internet-learned traits such as consumer access and control. Given that simple chip additions to current television sets will make them compatible with the new service, the Internet-to-

television service will be good for television manufacturers. As for others involved in the transition, content providers are using streaming technology as a way to retain control of their products’ integrity (*i.e.*, to overcome the pitfalls of downloading systems), and many of the companies pushing this new service already have hardware that would benefit from the success of the Internet on television (*e.g.*, Sony and Microsoft). If the early offerings gain customer approval, those kinds of market biases may change.

Part of the new scramble for the ultimate Internet-to-television system involves landing on just the right business model – one that makes the service as easy as possible for consumers to use and as close to free for consumers as content providers can afford. Whether such market realities require advertising, subscription fees or something else has yet to be clarified by the industry’s early practitioners.

Those bringing television into the Internet age must clear several such hurdles before their new service becomes, of necessity, consumer friendly – yet the integration process has started. After all, one new service already enables Internet “users” to access YouTube on the Boob Tube. Next will be control.

