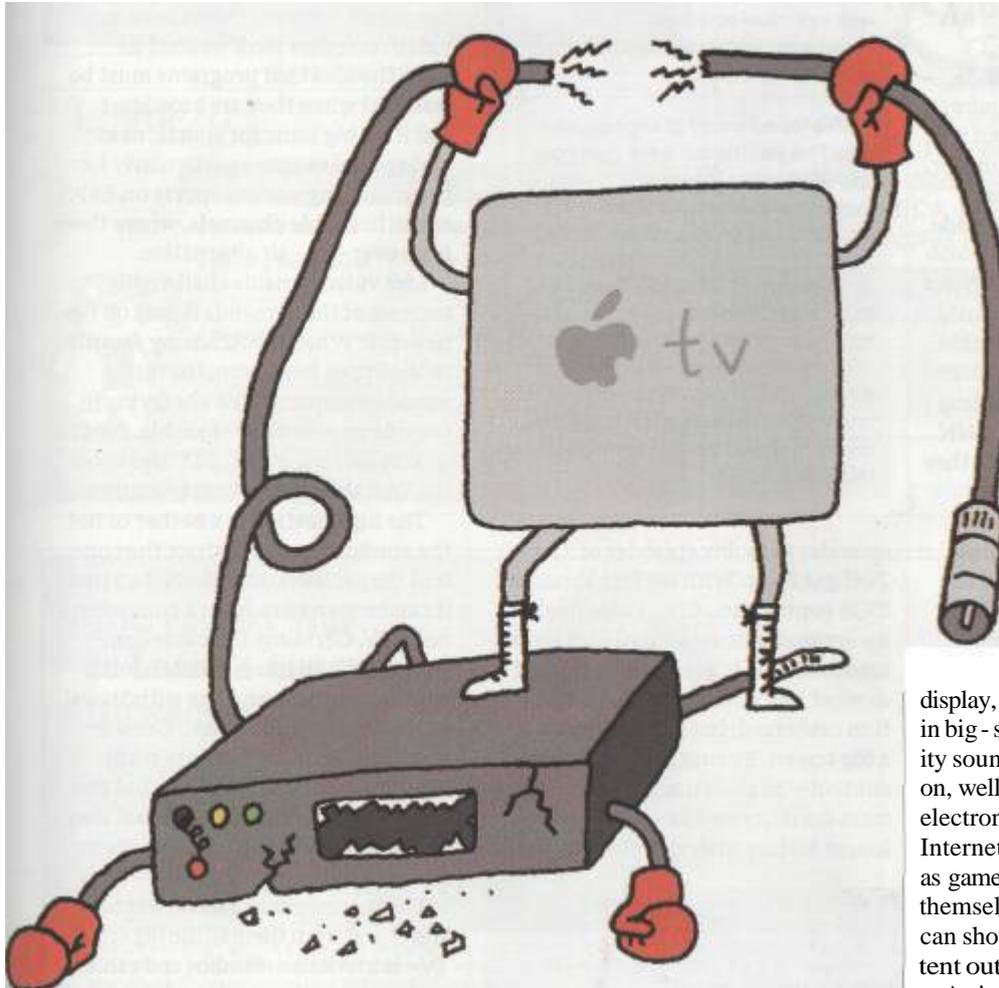


Internet TV Just Got a Lot Closer

Software called Boxee offers a program guide to Web content for viewing on a TV screen



Cable TV will be around for a long time, as will satellite and cable-like services from Verizon Communications and AT&T. But all of them will soon start to feel competitive pressure from the Net.

The online availability of TV shows, new and old, has been growing rapidly. There are, however, two big issues. One is that content is scattered across dozens of Web sites with no centralized program guide. The other is that Web content is generally designed to be watched on a computer

display, but people who have invested in big-screen televisions and quality sound systems prefer to watch TV on, well, a TV. In response, consumer electronics makers have been adding Internet capabilities to devices such as game consoles, TiVos, and TV sets themselves, though no single product can show more than a bit of all the content out there.

A piece of open-source software called Boxee offers a more sweeping solution to both problems. It's easily installed on a Mac or a PC running Linux (a Windows version is in the works), where it provides something like a set-top box program guide to a lot of the video available on the Internet. That's already a big step up from

Will the Internet destroy cable television? The question, which would have seemed absurd only a couple of years ago, is suddenly being taken very seriously, especially by the cable companies. The barrier to Internet-based television once seemed to be mainly technological. Increasingly, it is just a matter of working out some business issues.

hunting for desired content site by site.

The whole proposition becomes even more interesting when the program is installed on an Apple TV—a set-top box that allows you to view on your big-screen TV videos you have made yourself, as well as content purchased from iTunes. Apple TV has a remote that lets you easily select content from Boxee's program guide. Installing Boxee on Apple TV requires some technical sophistication, but it is at least an interesting proof of concept.

Once the installation difficulties were behind me, Boxee definitely made it a lot easier to watch Internet video on my TV. However, the selection of shows available doesn't come close to what you get with even the most basic cable service. Boxee's content is amalgamated from nearly 20 Web sites, including ABC, CBS, Comedy Central, and CNN. The shows are presented exactly as they would be if you went directly to the content site; commercials, if embedded in the Web originals, are retained. Unfortunately, Boxee recently had to take down content from Hulu.com, some of the best on the Web, at the request of the joint venture's content-producing partners, News Corp. and NBCUniversal.

The remaining content is a mixed bag, both in terms of selection and video quality. The CBS offerings, for example, range from current *CSI*

Not There Yet

What Internet TV needs in order to compete with cable:

- **Broader selection** of both current episodes of popular shows and of classics. Current offerings are spotty, with individual episodes and entire series appearing and disappearing without warning.
- **Live video** aimed at large-screen TVs. There's little out there right now, and what exists is generally of poor quality, suitable only for viewing in a small window on a computer display.
- **High-definition video.** Even if you have a fast connection, Internet sites today can stream video only in "standard definition"—roughly what you see on a standard, non-HD channel. As network speeds improve, the sites should be able to deliver true HD video.

episodes to moldy episodes of *The Twilight Zone*. With my fast Verizon FiOS connection, CBS' video quality approximates standard-definition broadcast TV. It's not nearly as good as what you'd see on a high-definition cable feed, but it's acceptable on a big screen. By contrast, the CNN content—an assortment of short clips from current news stories and some longer feature material—has the fuzzy

look of cell-phone video.

Few, of course, are ready to sever their ties to cable quite yet. Those who do will face the biggest shortcoming of the Boxee programming and of Web video in general: the lack of broadcast-quality live feeds. It's not a problem for most shows because video recorders have weaned us from the idea that programs must be watched when they are broadcast. But it's a big issue for sports, news, and special events—particularly for programming such as sports on ESPN and other cable channels, where there is no over-the-air alternative.

Live video remains challenging because of the demands it puts on the network. When the Academy Awards or the Super Bowl is on, the traffic would swamp any Web site trying to provide an alternative to cable. But the quality and selection of TV shows on the Web should continue to improve.

The big question is whether or not the studios want to restrict the content they release onto the Net so that it can be viewed only on a computer, not a TV. Certainly the cable companies have an interest in retaining paid subscribers, and the withdrawal of Hulu is not a good sign. Comcast and Time Warner Cable are readying their own Web offerings, but the preliminary indications are that they will be available only to subscribers for computer watching.

The movement of TV content to the Web—and from there to the big-screen TV—is inevitable. Studios and cable companies will struggle to defend their business models, but with software like Boxee, it's at least possible to glimpse the alternative.

Business Exchange
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Why Did Hulu Balk?

Fans of the Boxee Internet TV aggregation service were disappointed when the popular video site Hulu.com, owned by News Corp. and NBC Universal, insisted that its online content could no longer be made available through Boxee. MediaMemo's Peter Kafka speculates that, among other things, News Corp. and NBC acted under pressure from cable operators.

To read Kafka's story go to <http://bx.businessweek.com/news-corp/reference/>