

**Statement of Gigi B. Sohn, President, Public Knowledge  
Before the Federal Communications Commission  
National Broadband Plan Workshop: Best Practices/Big Ideas**

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I would like to thank the Commission for inviting me to speak about Internet video and “over-the-top” Internet video services at today’s “Best Practices/Big Ideas” workshop.

**Introduction**

Video over the Internet is one of the most important drivers of broadband adoption and utilization today. While many policy discussions focus exclusively on content produced by the big studios and production companies, the truth of the matter is that the Internet video ecosystem extends far beyond the boundaries of Hollywood. User-generated content, in its many forms, has enriched the lives of many Americans and rivals studio content in terms of popularity. The efforts of citizen journalists on YouTube, for example, have allowed citizens around the nation to instantaneously learn about events that are ignored or underreported on by the national news media.<sup>1</sup> The use of Internet video in the 2008 Presidential elections, meanwhile, encouraged participation in the democratic process, by providing a means by which candidates could speak directly to citizens and even allowing individuals to submit video questions for the Presidential debates.<sup>2</sup> With regard to education, many universities are now offering videos of lectures

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<sup>1</sup> "News Unfiltered: YouTube Embraces Citizen Journalism," *Ars Technica*, May 20, 2008 (<http://arstechnica.com/old/content/2008/05/news-unfiltered-youtube-embraces-citizen-journalism.ars>).

<sup>2</sup> "In Obama-McCain Race, YouTube Became a Serious Battleground for Presidential Politics," *U.S. News and World Report*, November 7, 2008 (<http://www.usnews.com/articles/news/campaign->

to the general public, as part of a practice known as "OpenCourseWare". Pioneered by the Massachusetts Institute of Technology, this practice encourages universities to showcase their course materials to be made available to people all over the world, many of whom would normally not possess the means to pursue higher education in a traditional setting.<sup>3</sup>

Clearly, Internet video holds the potential to further some of the most important goals of the National Broadband Plan, by encouraging Americans to adopt broadband services and promoting their use for purposes such as education and civic engagement.

As Chairman Julius Genachowski said at the FCC's July 2 open meeting:

[W]e must ensure that our broadband infrastructure and services advance national purposes, including job creation and economic growth...education, health care, energy, public safety, civic participation and many others".<sup>4</sup>

It is for these reasons that, as part of the National Broadband Plan, the Federal government must help foster an Internet video ecosystem that is competitive, open to new entrants and accessible to all Americans.

According to a recent study by comScore, over half of all Americans—158 million--watched video over the Internet in July 2009.<sup>5</sup> This figure, which represents

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2008/2008/11/07/in-obama-mccain-race-youtube-became-a-serious-battleground-for-presidential-politics.html).

<sup>3</sup> "MIT's OpenCourseWare Project Continues Apace," The Chronicle of Higher Education, March 23, 2007 (<http://chronicle.com/article/MIT-s-OpenCourseWare-Project/15958>).

<sup>4</sup> "Prepared Remarks on National Broadband Plan Process," FCC Chairman Julius Genachowski, July 2, 2009, p. 1 ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-291884A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-291884A1.pdf)).

<sup>5</sup> "U.S. Video Market Soars in July as Summer Vacation Drives Pickup in Entertainment and Leisure Activities Online," comScore, August 27, 2009 ([http://www.comscore.com/Press\\_Events/Press\\_Releases/2009/8/U.S.\\_Online\\_Video\\_Market\\_Soars\\_in\\_July\\_as\\_Summer\\_Vacation\\_Drives\\_Pickup\\_in\\_Entertainment\\_and\\_Leisure\\_Activities\\_Online](http://www.comscore.com/Press_Events/Press_Releases/2009/8/U.S._Online_Video_Market_Soars_in_July_as_Summer_Vacation_Drives_Pickup_in_Entertainment_and_Leisure_Activities_Online)).

some 81 percent of all U.S. Internet users, is the highest on record and serves as a testament to the creativity fostered by an open and decentralized Internet. Unbounded by traditional gatekeepers like broadcasters and Multichannel Video Programming Distributors (MVPDs), ordinary Americans have embraced the myriad opportunities that Internet video offers, producing and viewing content that ranges from simple to sophisticated and which fills a variety of critical, civic, educational, economic and cultural needs.

Meanwhile, innovative technology companies are allowing users to access this content in ways that move beyond the traditional video-watching paradigm. For example, Internet video providers like Hulu<sup>6</sup> and hardware manufacturers like Slingbox<sup>7</sup> allow users to watch network television programs on-demand from a computer or mobile device, even when they are away home. The Boxee application, in turn, allows traditional web videos like those from Hulu--and numerous other providers, including CNN, CBS, Comedy Central, YouTube, and independently created podcasts--to be viewed on home theater PCs and set-top-boxes like the Apple TV.<sup>8</sup> Internet video rental company Netflix, in partnership with hardware manufacturers like Roku, Microsoft, LG, Samsung and TiVo, now allows movie rentals to be streamed over the Internet, directly to a device that is connected to the user's television set.<sup>9</sup> Clearly, a great deal of innovation is taking place in the Internet video market. If this innovation is allowed to flourish, consumers will reap

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<sup>6</sup> See "Media Info," Hulu.com (<http://www.hulu.com/about>).

<sup>7</sup> See <http://www.slingmedia.com/>.

<sup>8</sup> See <http://www.boxee.tv>.

<sup>9</sup> See "Entertainment at Your Fingertips," Netflix (<http://www.netflix.com/NetflixReadyDevicesList?lnkce=nrd-l&trkid=425738&lnkctr=nrd-l-m>).

the benefits, in the form of increased choice and affordability as well as greater convenience.

### **MVPD and Programmer Practices That Could Negatively Impact the Growth of Over-the-Top Video Services**

According to the Pew Internet and American Life Project, Internet video viewership has nearly doubled since 2006, due mostly to increased adoption of broadband Internet services.<sup>10</sup> If the National Broadband Plan is successful, it stands to reason that online video viewership will continue to increase. One ABI Research study estimates that worldwide Internet video viewership could quadruple during the next five years, with more than a billion people worldwide watching video over the Internet by the year 2013.<sup>11</sup> This explosive growth is a major source of concern for networks and content providers, who may see revenue from traditional video services--for example, MVPD services--dwindle as more viewers embrace Internet video. Of particular concern to these incumbents is so-called "over-the-top video," that is, video content that travels directly from the provider to the consumer without the involvement of a network provider middleman. Examples of over-the-top video include streaming video services like Hulu, Netflix and Blip.tv.

Increasingly, studies are demonstrating that as broadband adoption increases, more and more users are choosing to "cut the cord," by unsubscribing from MVPD

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<sup>10</sup> "Online Video Watching Nearly Doubles Since '06," MSNBC, July 29, 2009 ([http://www.msnbc.msn.com/id/32201850/ns/technology\\_and\\_science-tech\\_and\\_gadgets/](http://www.msnbc.msn.com/id/32201850/ns/technology_and_science-tech_and_gadgets/)).

<sup>11</sup> "More Than One Billion Users Will View Online Video in 2013," ABI Research, May 27, 2008 (<http://www.abiresearch.com/abiprdisplay.jsp?pressid=1138>).

services.<sup>12</sup> According to Parks Associates, 900,000 U.S. households didn't pay for an MVPD service and relied solely on the Internet for television in 2008.<sup>13</sup> With the advent of over-the-top video services that can be easily watched on either a computer or a television set, incumbent providers have even more of an incentive now than in the past to unfairly disadvantage over-the-top video services vis-à-vis their own offerings. For this reason, the Commission must closely scrutinize practices by 1) a network provider that competitively disadvantages over-the-top video; and 2) a content provider that competitively disadvantages both over-the-top video and network providers, particularly smaller network providers.<sup>14</sup> A description of such practices follows.

#### **A. “TV Everywhere”**

“TV Everywhere” is an initiative being pursued by a number of cable companies, including Comcast and Time Warner Cable, to extend the reach of the cable MVPD subscription model into the world of Internet video.<sup>15</sup> Under the TV Everywhere model, subscribers to cable video services would be granted access to video content online as part of their cable subscription. While the full details of TV Everywhere have yet to be made public, the program could discourage innovation if it requires, encourages or allows

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<sup>12</sup> "Home Broadband Adoption 2009," Pew Internet and American Life Project, June 17, 2009 (<http://pewinternet.org/Reports/2009/10-Home-Broadband-Adoption-2009.aspx>).

<sup>13</sup> "More Households Cut the Cord on Cable," *The Wall Street Journal*, May 28, 2009 (<http://online.wsj.com/article/SB124347195274260829.html>).

<sup>14</sup> In light of a recent ruling by the United States Court of Appeals for the DC Circuit—which lifts a FCC market share cap intended to prevent further consolidation in the cable market—it is even more critical that over-the-top video providers be able to provide a competitive alternative to other multichannel video providers. See *Comcast et al. v. F.C.C. et al.*, No. 08-1114, slip. op. (D.C. Cir. Aug. 28, 2009).

<sup>15</sup> "Everything You Need to Know About TV Everywhere," NewTeeVee, June 23, 2009 (<http://newteevee.com/2009/06/23/what-you-need-to-know-about-tv-everywhere/>).

programmers and content providers to sign exclusive deals with cable companies. As has been previously stated by the Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO), to the extent that TV Everywhere discourages the emergence of online-only MVPDs, prevents small or rural MVPDs or over-the-top providers from negotiating with programmers to offer that same content to users,<sup>16</sup> or discourages programmers from making that content available directly to the consumer, it should be carefully scrutinized by the Commission.

### **B. Bandwidth Caps**

Since ISPs also act as MVPDs, the Commission should closely examine any practice that discourages users from viewing Internet video, to the advantage of an ISP's own video offerings. Increasingly, ISPs are looking to implement so-called "bandwidth caps," purportedly to deal with network congestion. A number of U.S. ISPs have already implemented such caps: Comcast, for example, caps bandwidth at 250GB for residential customers<sup>17</sup> and Time Warner Cable has experimented with bandwidth caps as small as 5GB per month in some areas.<sup>18</sup> While Public Knowledge recognizes that bandwidth caps can be used for legitimate network management purposes, it urges the Commission to monitor the use of such caps carefully to ensure that bandwidth rationing is not used for anticompetitive ends.

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<sup>16</sup> Comments of the Organization for the Promotion and Advancement of Small Telecommunications Companies, FCC docket 07-269, July 29, 2009, p. 5-10 ([http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=7019933893](http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=7019933893)).

<sup>17</sup> "Announcement Regarding An Amendment to Our Acceptable Use Policy," Comcast (<http://www.comcast.net/terms/network/amendment/>).

<sup>18</sup> "Time Warner Cable Expands Internet Usage Pricing," Business Week, March 31, 2009 ([http://www.businessweek.com/technology/content/mar2009/tc20090331\\_726397.htm](http://www.businessweek.com/technology/content/mar2009/tc20090331_726397.htm)).

While the implementation of bandwidth caps varies from provider to provider, some ISPs enforce bandwidth caps with the threat of overage charges. If a user exceeds the amount of bandwidth allotted per month, that user will be charged an additional amount, based on the amount of bandwidth used. In most cases, however, the user is not provided with any mechanism whereby she can monitor her consumption. Rather, the user is only notified in the event that the ISP believes she has already exceeded the limit. Such a system, which threatens users with additional fees while offering no tools with which to manage or check the ISP's record of users' bandwidth consumption, effectively discourages users from engaging in activities that consume large amounts of bandwidth, including viewing Internet video. Discouraging use of broadband networks in this manner in turn discourages network providers from investing in greater capacity.

To nurture innovation, prevent anticompetitive practices, and ensure that consumers are kept fully apprised of the use of bandwidth caps, the Commission should require that:

- bandwidth caps do not discourage the use of, development of and investment in innovative, high-bandwidth services like online video;
- bandwidth caps are dynamic and are adjusted over time, to reflect changes in the capacity and costs of the network and the needs of the average user;<sup>19</sup>

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<sup>19</sup> While Internet bandwidth demand continues to grow at a rate of 50-60% per year, "Bandwidth: Cogent Pricing @ \$6, Juniper Confirms Normal Bandwidth Growth," Fastnews, August, 2009 (<http://fastnetnews.com/dslprime/42-d/1331-bandwidth-price-down-growth-moderate-juniper-cogent>), and ISPs continue to offer higher-speed connections to customers, bandwidth caps have generally remained static. Comcast, for example, has introduced new speed tiers during the last 12 months but has not adjusted its cap to account for increasing demand for bandwidth since first implementing it in October 2008. Comcast to Roll Out Extreme 50 MBPS High-Speed Internet Service in Oregon and Southwest Washington in December," Comcast, November 17, 2008 (<http://www.comcast.com/About/PressRelease/PressReleaseDetail.aspx?PRID=821>).

- adequate notice is provided to users regarding the use of bandwidth caps;
- bandwidth caps be clearly defined as pertaining to downstream traffic, upstream traffic or both;
- bandwidth caps treat all bandwidth equally and do not discourage use of certain services by excluding traffic to and/or from certain privileged parties or services; and
- users are given robust tools for monitoring their bandwidth consumption.

### **C. Broadband Tying**

The Internet was designed to facilitate the free flow of information and any attempt to impede the movement of data online holds the potential to dramatically alter the nature of the Internet ecosystem. Of recent concern are deals made between online service providers and ISPs for access to content, a practice that OPASTCO refers to as "broadband tying". While TV Everywhere ties access to content to an MVPD service, broadband tying ties access to content with a broadband service. The most prominent example of this practice is ESPN360.com, an Internet video service offered by the ESPN television network. ESPN360.com is currently only available to subscribers of certain ISP networks, which pay ESPN for that access.<sup>20</sup> This places rural users and ISPs at a disadvantage, since smaller ISPs may not have the resources to enter into such content deals.<sup>21</sup> In addition, the costs associated with acquiring access to such content in all likelihood will be passed on to consumers, thereby increasing the cost of broadband for

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<sup>20</sup> "Suddenlink Launches ESPN360.com," Multichannel News, August 17, 2009 ([http://www.multichannel.com/article/327725-Suddenlink\\_Launches\\_ESPN360\\_com.php](http://www.multichannel.com/article/327725-Suddenlink_Launches_ESPN360_com.php)).

<sup>21</sup> Comments of the Organization for the Promotion and Advancement of Small Telecommunications Companies, FCC docket 07-269, July 29, 2009, p. 13-16 ([http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=7019933893](http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=7019933893)).

all users, including those users who do not make use of the content in questions. This undermines one of the key goals of the National Broadband Plan, which is to increase the affordability of broadband services so as to encourage adoption.<sup>22</sup>

#### **D. Discrimination Against Internet Video on Mobile Data Networks**

In its response to the FCC Wireless Telecommunications Bureau's inquiry into its business practices, Apple Inc. revealed that it had blocked the SlingPlayer Mobile application from being used on the iPhone handset, because a subscriber who used the application would have violated AT&T Wireless' terms of service.<sup>23</sup> The SlingPlayer Mobile application, which is produced by Sling Media, allows users to access content from their home MVPD subscription on mobile devices. According to Apple, because AT&T's terms of service prohibit a user from "redirecting a TV signal to an iPhone using AT&T's cellular network," the application was rejected and was not approved until that capability had been removed (the application now only allows users to stream video content when attached to a WiFi network).<sup>24</sup> By preventing subscribers from using SlingPlayer Mobile over its 3G network, AT&T discourages them from using streaming video applications, possibly in an attempt to steer users toward its own video offerings, such as Mobile TV.<sup>25</sup>

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<sup>22</sup> Notice of Inquiry, FCC docket 09-51, April 8, 2009, p. 19-20 ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-09-31A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-31A1.pdf)).

<sup>23</sup> "Apple Answers the FCC's Questions," Apple Inc., August 21, 2009 (<http://www.apple.com/hotnews/apple-answers-fcc-questions/>).

<sup>24</sup> Ibid.

<sup>25</sup> See "AT&T Mobile TV," AT&T (<http://www.wireless.att.com/learn/messaging-internet/mobile-tv/>).

Regardless of intent, AT&T and Apple's treatment of SlingPlayer Mobile draws attention to a practice that will likely become prevalent as handsets become more technologically capable: the discriminatory treatment of Internet video. Video is simply another form of data that travels over the network and service providers should not be allowed to discriminate against traffic based on its type, protocol, source or destination.

### **Recommendations to the Commission With Regard to Internet Video**

In light of the above, Public Knowledge makes the following recommendations to the Commission with regard to the treatment of online video in the National Broadband Plan.

#### **A. Encourage the Use of Internet Video Applications**

Internet video is a key driver for broadband adoption and utilization and is an important tool for promoting education, civic engagement and technological innovation. Practices that restrict access to Internet video threaten to undermine many of the policy aims of the National Broadband Plan. Furthermore, as was seen in both the Comcast/Bit Torrent<sup>26</sup> proceeding and the Commission's inquiry into the business practices of Apple and AT&T with regard to the iPhone,<sup>27</sup> practices that restrict Internet video also hold the potential to be used to anticompetitive ends. For these reasons, Internet video should be lauded as a valuable edge-based tool and not condemned as the exclusive province of so-called "bandwidth hogs".

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<sup>26</sup> Memorandum Opinion and Order, FCC docket 07-52, August 1, 2008 ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-183A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-183A1.pdf)).

<sup>27</sup> See Section III. D.

As such, the National Broadband Plan should encourage the use of edge-based video services while rejecting calls to limit video consumption in the name of network management. As was asserted by the Commission in its *Memorandum Opinion and Order* in the Comcast/Bit Torrent proceeding, bandwidth can be adequately managed using application- and protocol-agnostic means.<sup>28</sup>

## **B. Encourage Hardware and Software Developers to Innovate**

To encourage continued innovation in the Internet video market, the Commission should ensure that hardware and software developers who market devices and applications that allow users to create, view and interact with online video in new and exciting ways can continue to do so. To achieve these goals, we urge the Commission to:

1. prohibit both wireline and wireless Internet access providers from discriminating against any content, applications or services based on its source, ownership or destination and should apply its *Broadband Policy Statement*<sup>29</sup> to wireless Internet access.
2. rigorously enforce Section 629 of the Communications Act, to ensure that "cable Carterfone" protections allow innovators to deliver Internet video to the television set without interference.<sup>30</sup>
3. clarify that over-the-top video providers are "MVPDs" solely for the purposes of Section 628 of the Communications Act<sup>31</sup> and that linear video programming and producers of linear video programming are

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<sup>28</sup> Memorandum Opinion and Order, FCC docket 07-52, August 1, 2008 ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-183A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-183A1.pdf)).

<sup>29</sup> *In re: Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, et al.*, FCC No. 05-151, September 23, 2005.

<sup>30</sup> 47 U.S.C. § 549

<sup>31</sup> 47 U.S.C. § 548

covered by Section 616 of the Communications Act.<sup>32</sup> This would prevent existing video programmers or MVPDs from acting to prevent the emergence of new competitors, as doing so would violate Sections 628(b) and 616.<sup>33</sup>

4. require the unbundling of video and broadband services, so that those consumers who wish to "cut the cord" may do so without incurring a financial penalty.

### **Conclusion**

It is important to remember that Internet video is ultimately just another form of data. Therefore, adoption and strict enforcement of many of the openness and non-discrimination recommendations that Public Knowledge has urged be made part of the National Broadband Plan<sup>34</sup> would go a long way toward ensuring the continued growth of Internet video and over-the-top video services. In addition, the Commission should seek to foster competition in the video market both by scrutinizing the practices highlighted above and by implementing the recommendations made above.

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<sup>32</sup> 47 U.S.C. § 536

<sup>33</sup> This recommendation is purposefully very narrow, and Public Knowledge does not intend to suggest that over-the-top video providers should be subject to the broader requirements of Title VI. The Commission should be mindful about the unintended consequences regulations placed on the video marketplace might have on the open nature of the Internet.

<sup>34</sup> See comments of Public Knowledge, et al. in re: A National Broadband Plan for our Future, GN Docket No. 09-51 at 6-17.