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## **The Open Internet: Regulating to Save th**

and enforcement tools before creating new ones that would be potentially redundant and counterproductive. Let me begin with my experiences studying network neutrality issues, offer some background on a few of the relevant and unique characteristics of the Internet, frame today's debate, and then explain how I reached my position on this issue. Please note that the opinions and perspectives I offer today are mine alone and not necessarily the views of the Commission or any other Commissioner.

## **I. Background and Recent Developments**

### **A. Background**

As many of you know, before I was appointed a Commissioner, I had the honor of serving the FTC for twelve years under both Democratic and Republican Chairmen. My last position at the FTC before heading to private practice in 2009 was as the Director of the Office of Policy Planning. In 2006, then-Chairman Deborah Majoras asked me to lead an Internet Access Task Force to reach out to interested stakeholders and investigate the issues surrounding Internet access and network neutrality. I and my team at the FTC spent roughly a year hearing from and working with consumer advocates and experts in industry, technology, and academia exploring competition and consumer protection issues relating to the Internet. In February 2007, we held a two-day workshop at the agency in which hundreds of people came together to discuss network neutrality issues and offer solutions, which some members of this audience attended. In June 2007, we published the *Broadband Connectivity Competition Policy* report summarizing our

findings and offering recommendations. I will refer to this report as the “*Net Neutrality Report*.”<sup>1</sup>

We conducted the 2007 workshop and have begun more deeply examining internet neutrality issues at the FTC because over the last ten or so years we have begun seeing a shift in the regulation of the Internet from a pervasively regulated telecommunications environment to one that relies more heavily on antitrust principles to support the buoyancy of th

Court affirmed that the FCC's interpretation of cable broadband as an information service was a reasonable construction of the Communications Act in *National Cable & Telecommunications Association v. Brand X Internet Services*.<sup>4</sup>

## **B. Recent Developments**

Since *Brand X*, the FCC has asserted ancillary jurisdiction over broadband information services and imposed certain Internet freedoms “to ensure that broadband networks are widely deployed, open, affordable, and accessible to all consumers.”<sup>5</sup> The Internet freedoms and the FCC's jurisdiction over “information services” were challenged in court in 2007, after the FCC sanctioned Internet service provider Comcast for violating them.<sup>6</sup> The D.C. Circuit rejected the FCC's exercise of ancillary jurisdiction, calling it “flatly inconsistent” with controlling law.<sup>7</sup>

Reacting to this ruling, FCC Chairman Julius Genachowski in 2010 offered a “third way” to continue with FCC regulation of the Internet.<sup>8</sup> This approach involves recasting the transmission component of “broadband services” as

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<sup>4</sup> 545 U.S. 967, 1000 (2005), *affirming* the 2002 *Cable Modem Order*.

<sup>5</sup> *In re Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, 20 FCC Rcd 14986 (2005) (policy statement); *see also In re Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks*, 22 FCC Rcd 5901, 5901-02 (2007) (declaratory ruling).

<sup>6</sup> *See id.*; Cecilia Kang, *Court Rules for Comcast over FCC in 'Net Neutrality' Case*, THE WASHINGTON POST (April 7, 2010), available at <http://www.washingtonpost.com/wp-dyn/content/article//2010/04/06/AR2010040600742.html>.

<sup>7</sup> *Comcast v. FCC*, 600 F.3d 642, 658 (D.C. Cir. 2010).

<sup>8</sup> Julius Genachowski, *The Third Way: A Narrowly Tailored Broadband Framework* (May 6, 2010), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-297944A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-297944A1.pdf).



requires regulation at all and, if so, the appropriate standards to apply. The origins and structure of the Internet offer valuable insight in answering these questions – and in determining whether these are even the right questions to be asking.

## **II. Framing the Net Neutrality Debate**

### **A. Design Characteristics Shaping The Debate**

As we all know, the Internet grew out of U.S. government-funded research in the 1960s and 1970s by the Department of Defense’s Advanced Research Projects Agency (DARPA).<sup>12</sup> Three of the original design characteristics of the Internet remain important to our analysis of net neutrality issues: decentralization and redundancy; packet-switched communication; and end-to-end architecture offering “first-in, first-out” or “best efforts” service across “dumb pipes.”<sup>13</sup>

These design principles remain front and center in today’s debate because questions persist about the ability of any single market participant to engage in meaningful vertical foreclosure in a system designed around technical and competitive decentralization. This has shifted the spotlight of our debate to where foreclosure might still occur due to potential bottlenecks, primarily at the “last mile,” where access providers act as “gatekeepers,” and, to a lesser extent, at the

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<sup>12</sup> Barry M. Leiner et al., A Brief History of the Internet, INTERNET SOCIETY <http://www.isoc.org/internet/history/brief.shtml> (last visited October 26, 2012).

<sup>13</sup> See David D. Clark, *The Design Philosophy of the DARPA Internet Protocols*, Computer Comm. Rev., Aug. 1988, at 106-107, available at <http://nms.csail.mit.edu/6829-papers/darpa-internet.pdf>; *Net Neutrality Report*, at 17; see also J.H. Saltzer et al., *End-to-End Argument in System Design*, 2 ACM Transactions on Computer Sys. 277 (1984).

network's backbone or core. Many of the concerns today echo or build on what I heard five years ago when leading the Internet Access Task Force.

### **B. Proponents of Net Neutrality Regulation**

Proponents of network neutrality regulation believe the Internet's original design characteristics have allowed content and applications providers at the edge of the Internet to thrive and generate substantial positive externalities and dynamic







technological models. And, to me, an

In my mind, the open Internet is not a particular business model or internet architecture. To me, you cannot take a snapshot of the Internet as it stands today, as a largely open model with a primarily end-to-end architecture, and claim that this is how it is and shall always be. Not necessarily. The open Internet to me is a concept that allows for continued experimentation with business models and interconnection models largely free from regulatory infiltration. Regulation of the Internet should be a cautious, careful, and methodical enterprise that allows businesses the considerable flexibility they need to innovate.

### **B. Why Antitrust Is the Right Analytical Framework**

Thinking through this as an antitrust problem helps illuminate a few points that are now making their way into the conversation on this subject. First, generally speaking the right analysis for vertical restraints (under applicable U.S. law) is the rule of reason (or for vertical integrations the similarly fact-intensive and flexible merger review standards under the Clayton Act), in which procompetitive benefits are weighed against anticompetitive harms, not the per se rule. To the extent conduct, whether it is vertical integration or price discrimination against certain types of transmissions, is lawful should depend largely on its net benefit to competition and consumers. Professors Thomas Hazlett and Josh Wright of George Mason University recently published a paper exploring net neutrality from this perspective.<sup>22</sup> They offer several examples showing the internet as we know it is not neutral and never has been – and for good reason. Vertically-integrated “walled gardens” of “non-neutral” content pervade the history of the Internet – and have succeeded and failed based on their value to consumers. For instance, in the 1990s, America Online (AOL) developed a closed platform with exclusive content for its users, in the process charging brand-name media companies, like TIME Magazine and The New York Times, for the right to publish on AOL while also developing proprietary content like financial site Motley Fool, through the AOL Greenhouse, an online start-up

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<sup>22</sup> Hazlett and Wright, *supra* note 19, at 767.



Nor is AOL the only example of lawful and beneficial vertical integration or content discrimination on the web. Web portal Excite merged with high speed internet provider @Home to launch Excite@Home – at the time intended to be a broadband version of AOL.<sup>27</sup> AOL’s chief competitor in the 1990s, Earthlink, teamed up with Netscape to move over its users to Netscape Navigator. It also entered strategic vertical relationships with Sprint (a large telephony company) and, later, with Apple to be the default Internet software on the new iMac.<sup>28</sup> And, as Hazlett and Wright point out, Google was able to achieve scale in its early days in 2002 only after winning a bid to be the default search engine on AOL’s start-up page – beating out rivals Inktomi and Overture for the plum position.<sup>29</sup> And, just this year, despite the fears over vertical foreclosure when Comcast bought a majority stake in NBC Universal last year, Comcast entered into a ten-year multi-platform deal with Disney that will allow Comcast subscribers to view Disney programming on television, online, or on a tablet or other handheld device – notably, the Comcast/NBCU deal had been subject to scrutiny and a consent

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<sup>27</sup> Frank Rose, *The Seven Billion Dollar Delusion*, WIRED (October 2001), available at [http://www.wired.com/wired/archive/10.01/excite\\_pr.html](http://www.wired.com/wired/archive/10.01/excite_pr.html).

<sup>28</sup> *Earthlink*, GALE ENCYCLOPEDIA OF E-COMMERCE (2002), available at <http://www.encyclopedia.com/doc/1G2-3405300149.html>.

<sup>29</sup> Hazlett and Wright, *supra* note 19, at 796.

decree by the DOJ's Antitrust Division.<sup>30</sup> Each of these deals is an example of a business model that arguably could violate net neutrality principles. And, yet, most offered tangible procompetitive benefits and grew into successful businesses. Others quietly faded away because of changing consumer demands or economics without in the process degrading the Internet experience or realizing the deepest fears of net neutrality advocates.

These examples suggest to me that at a minimum any inquiry into alleged blocking or discrimination must be a fact-intensive enterprise faithfully applying antitrust principles. Vertical relationships offer many potential procompetitive efficiencies, including reducing double marginalization, minimizing the possibility of free riding, and facilitating investment.<sup>31</sup> For instance, a content provider that also owns a broadband network would likely be able to distribute its content to its users without paying interconnection or transit fees to another network. These savings free up capital for the vertically-integrated company to make additional investments in infrastructure or programming or to lower its prices, any of which is a potential benefit to competition and the consumer. A review of the economics literature by several current and former FTC and DOJ economists found that most

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<sup>30</sup> See Tim Molloy, *Disney-Comcast Make Ten-Year XFINITY Multi-platform Deal*, available at <http://www.reuters.com/article/2012/01/04/idUS230102746820120104>; Claire Atkinson, *Comcast Snares Mouse House Deal*, N.Y. Post, Jan. 5, 2012, available at [http://www.nypost.com/p/news/business/comcast\\_snares\\_mouse\\_house\\_deal\\_NIrN3PEQOXmJ5QNBfAN3JL](http://www.nypost.com/p/news/business/comcast_snares_mouse_house_deal_NIrN3PEQOXmJ5QNBfAN3JL).

<sup>31</sup> Hazlett and Wright, *supra* note 19, at 796.

analyses of vertical integration did not show compelling evidence of net anticompetitive harm.<sup>32</sup>

Even if one does not agree that vertical integration or vertical restraints can often be efficiency-enhancing, adopting what amounts to a per se prohibition on





empirical studies in this area, three recent publicized trends help reinforce my belief in the adaptability of the Internet and the lack of need for a new, static, regulatory mechanism.

First, the move to mobile broadband appears to have accelerated in the last few years and this trend is reshaping the way people access and interact with the Internet. As the FCC noted in its August 2012 *International Broadband Data Report*, “[w]ireless broadband subscriptions topped 500 million in OECD countries [at] the end of 2010 (compared to 300 million fixed broadband subscriptions.”<sup>37</sup> The FCC also commented that “[a]ccording to Cisco, global mobile data in 2011 (597 petabytes per month) more than doubled for the fourth consecutive year. Cisco also reports all mobile data traffic generated in 2011 was ‘eight times the size of the entire global Internet in 2000.’”<sup>38</sup>

While mobile broadband access generally is not yet as fast or widespread as wireline, it is an increasingly important option for consumers, especially in rural or less developed areas. The build out of the 3G and more recently, in the United States, 4G LTE wireless networks has introduced potentially viable competitors to the legacy cable and DSL

LTE subscribership will reach at least 400 million by 2016.”<sup>39</sup> Here are a couple of additional facts to consider: “[O]f Americans with mobile phones, 31% only or mostly use the Internet on their mobiles. More than a third of the people in the US don’t have Internet access at home, but nine out of ten have a mobile phone.”<sup>40</sup> In addition, “Mobile internet use accounted for 10.1% of media use in the US at the end of last year . . .”<sup>41</sup> While the advance of mobile broadband access is still underway, it cuts against the “last mile” problem and signals a potential shift in the debate about network neutrality.

Second, content delivery networks, or “CDNs,” have proliferated over the last several years and are changing the economics of legacy network infrastructure providers.<sup>42</sup> CDNs can connect content providers directly with last mile networks and offer innovations like caching closer to end users.<sup>43</sup> They allow for less reliance on backbone networks by content businesses at the “edge” of the Internet and reduce their use of terminating networks through caching technology, saving these content providers money.<sup>44</sup> As a result, content and applications companies

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<sup>39</sup> *Id.* at 2.

<sup>40</sup> *See* Olof Schybergson, *The Trend that Terrifies Big Tech*, FORTUNE (Aug. 21, 2012), available at <http://tech.fortune.cnn.com/2012/08/21/mobile/>.

<sup>41</sup> Richard Waters, *Advertisers Cautious of Move to Mobile*, FINANCIAL TIMES (Aug. 8, 2012), available at <http://www.ft.com/intl/cms/s/0/3458d640-e165-11e1-9c72-00144feab49a.html#axzz2AR1jV215>.

<sup>42</sup> *See generally* Christopher Yoo, *Innovations in the Internet’s Architecture that Challenge the Status Quo*, 8 J. High Tech. and Telecomm. Law 79, 86-90 (2010).

<sup>43</sup> Dennis Weller & Bill Woodcock, *Internet Traffic Exchange, Market Developments and Policy*

are increasingly turning to CDNs, with some even building their own networks.

As Hazlett and Wright note, “[c]ontent companies like Google [are] constructing

second this year.<sup>50</sup> This growth appears to have been enough to keep pace with demand thus far, at least in the



markets are notoriously susceptible to regulatory failures, which is in large part why I think we should first look to our existing (well-stocked) inventory of antitrust, competition, and consumer protection laws before creating new, and perhaps counterproductive, regulations.

I think my agency is up to the task of maintaining free and competitive markets, and has substantial expertise training an unbiased eye on competition and consumer protection issues in numerous Internet contexts. And our prior work gives us a particular understanding of the type of vertical issues that concerns net neutrality advocates today. For instance, in the early days of the net neutrality debate, the FTC examined the AOL/Time Warner merger, which brought together at that time the nation's largest internet service provider with one of its largest cable and content companies. After careful analysis, the agency entered a consent decree requiring that AOL and Time Warner open their cable systems to competing ISPs, refrain from discriminating against the content of competitors, decline exclusive deals on ISP or interactive TV services with other cable companies, and refrain from discriminating against the content of non-affiliated ISPs or interactive TV services, among other obligations.<sup>56</sup> And, of course, although I haven't addressed it much today, the FTC has nearly a century of

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<sup>56</sup> Press Release, Fed. Trade Comm'n, FTC Approves AOL/Time Warner Merger with Conditions (Dec. 14, 2000), available at <http://www.ftc.gov/opa/2000/12/aol.shtm>. When considered along with the Antitrust Division of the Department of Justice, antitrust enforcers in the United States have looked at numerous deals involving Internet access and backbone infrastructure, including Microsoft/WebTV (1997), MCI/Worldcom (1998), AT&T/MediaOne (1999), WorldCom/Sprint (2000), Verizon/MCI (2005), SBC/AT&T, and AT&T/Bell South.

consumer protection expertise to bring to bear in fighting unfair or deceptive acts or practices online, meaning we can guard against transparency concerns raised by the FCC and others.

I contend that we are on the right path in developing and maintaining an open Internet as I understand it. We do not need additional regulation that may ultimately do more harm than good, particularly given the dynamism in most technology markets and their sensitivity to burdensome regulation. As we move forward in this debate we should all keep in mind that well-meaning government enforcers can impose regulations with unintended negative effects. While I have no doubt about the good intentions of all parties in this debate, I believe cautious and informed action will allow free markets to serve the greatest good.

Thank you. I am happy to take your questions.