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Virtual Takings: The Coming Fifth Amendment Challenge to Net Neutrality Regulation

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VIRTUAL TAKINGS: THE COMING FIFTH AMENDMENT CHALLENGE TO NET NEUTRALITY REGULATION

*Daniel A. Lyons**

"Net neutrality" refers to the principle that broadband providers should not limit the content and applications available over the Internet. Long a rallying cry of techies and academics, it has become one of the central pillars of the Obama Administration's telecommunications policy. The Federal Communications Commission's efforts to regulate the "onramp to the Internet" have attracted significant attention from the telecommunications industry and the academic community, which have debated, among other things, whether the proposed restrictions violate broadband providers' First Amendment rights. But there is an additional constitutional implication of net neutrality that has not yet been sufficiently addressed in the scholarly literature: the Takings Clause.

This Article argues that under the Supreme Court's Takings Clause jurisprudence, the Commission's proposed net neutrality rules effect a permanent physical occupation of private broadband networks and therefore take broadband providers' property without just compensation. In essence, net neutrality would grant Internet content providers a permanent virtual easement across privately owned broadband networks to deliver content to end-users. It thus would deprive broadband providers of the right to exclude others from their networks—a right that the Court's takings jurisprudence has repeatedly dubbed "one of the most essential sticks in the bundle of rights that are commonly char-

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acterized as property."[1] At the very least, the Takings Clause issue raises a serious constitutional question regarding the Commission's authority to adopt net neutrality regulations without clear authority from Congress to do so. The Commission should therefore seek explicit congressional approval before promulgating net neutrality rules, rather than continuing to freelance at the periphery of its regulatory authority.

INTRODUCTION 67
I. BROADBAND DEVELOPMENT AND THE NET NEUTRALITY DEBATE 70
A. *The Telecommunications Act of 1996* 70
B. *The Growth of Broadband* 72
C. *The "Open Access" Debate* 73
D. *Origins of Net Neutrality* 76
E. *Lurching Toward a Net Neutrality Policy* 80
F. *The Open Internet Initiative and the "Third Way"* 83
1. The Open Internet Initiative 83
2. The *Comcast* Decision 86
3. The "Third Way" Proposal 87
II. NET NEUTRALITY THROUGH THE LENS OF THE TAKINGS CLAUSE 89
A. *Overview of Regulatory Takings Jurisprudence* 89
B. *Net Neutrality as a Per Se Taking Under* Loretto 92
1. Net Neutrality Effects a Permanent Physical Occupation of Broadband Networks 92
2. Fifth Amendment Protection of Electronic Networks 96
3. The *Cablevision* Decision 99
C. *Net Neutrality as a Regulatory Taking Under* Penn Central 101
1. Interference with Investment-Backed Expectations 101
2. Economic Impact 103
3. Character of the Government Action 104
D. *Distinguishing Common Carriage and Public Accommodations* 105
1. Common Carriage 106
2. Public Accommodations Rules 112
III. RAMIFICATIONS FOR THE "OPEN INTERNET" INITIATIVE AND THE "THIRD WAY" PROPOSAL 114
CONCLUSION 117

1 Kaiser Aetna v. United States, 444 U.S. 164, 176 (1979).

INTRODUCTION

Born in the nether world of law review articles and academic conferences, net neutrality has quickly matured to become one of the Obama Administration's defining telecommunications issues. The Federal Communications Commission has proposed rules[2] to regulate what new Chairman Julius Genachowski has described as the "on ramp to the Internet": the privately held telecommunications networks that connect individual consumers to the Internet's public servers.[3] Termed the "Open Internet" Initiative, these proposed rules would limit the discretion of broadband providers such as Verizon, AT&T, and Comcast to regulate the terms of access to their networks by Internet content providers such as Google and Hulu.[4]

Proponents of net neutrality have long argued that such restrictions are necessary to prevent broadband providers from leveraging their market power to adversely affect Internet development and operation.[5] Net neutrality opponents, however, have questioned the practical effects of such proposals and have argued that, for the most part, net neutrality seems to be a solution in search of a problem.[6] Opponents also recognize that billions of dollars have been invested over the past decade to build a high-speed broadband network, and much more is still required to achieve the Administration's goal of ubiquitous broadband access.[7] Such investment is retarded by regulations that restrict broadband providers' ability to recover these costs through enhanced services or tiered-access pricing. With the promulgation of the Commission's "Open Internet" notice of proposed rulemaking[8] and its follow-up notice of inquiry regarding the Frame-

2 *See* Preserving the Open Internet, Broadband Industry Practices, 74 Fed. Reg. 62,638 (FCC proposed Nov. 30, 2009) [hereinafter Net Neutrality NPRM] (to be codified at 47 C.F.R. pt. 8).

3 *See* Julius Genachowski, *Conversations with FCC Chairman Julius Genachowski: Thoughts on the October Commission Meeting & the Open Internet NPRM*, OPENINTERNET.GOV (Oct. 22, 2009), http://www.openinternet.gov.

4 *See* Net Neutrality NPRM, *supra* note 2, at 62,645.

5 *See, e.g.*, Lawrence Lessig, *In Support of Network Neutrality*, 3 ISJLP 185, 188–95 (2007); Tim Wu & Christopher S. Yoo, *Keeping the Internet Neutral?: Tim Wu and Christopher Yoo Debate*, 59 FED. COMM. L.J. 575, 580–90 (2007).

6 *See, e.g.*, Wu & Yoo, *supra* note 5, at 580–81.

7 *See, e.g.*, FCC, CONNECTING AMERICA 9 (2010), *available at* http://download.broadband.gov/plan/national-broadband-plan.pdf [hereinafter CONNECTING AMERICA] (discussing Commission's goal to provide affordable high-speed broadband access to 100 million households by 2020).

8 *See* Net Neutrality NPRM, *supra* note 2, at 62,638.

work for Broadband Internet Service,[9] this debate has finally spilled over from the pages of law reviews and onto the docket of the government's chief telecommunications regulator, the Federal Communications Commission.

The net neutrality debate has also at times assumed a constitutional dimension, focusing primarily upon dueling First Amendment concerns. Net neutrality proponents highlight the right of consumers to send and receive virtual speech free of "censorship" by broadband providers, in the form of blocked or degraded transmission of certain Internet applications or content.[10] Others argue that net neutrality would infringe upon broadband providers' own First Amendment rights to speak and engage in editorial control of content distributed over their networks.[11] While the Supreme Court has recognized First Amendment protection for network operators in similar contexts,[12] it is unclear how these decisions apply in the net neutrality context.

But there is an additional constitutional limitation whose import has not been sufficiently addressed in the net neutrality literature: the Takings Clause. The "Open Internet" Initiative would compel broadband providers to provide third parties access to their networks, and to do so on the same terms as the broadband providers' own proprietary content. Net neutrality thus deprives broadband providers of the right to exclude others from their networks—a right that the Court's takings jurisprudence has repeatedly dubbed "'one of the most essential sticks in the bundle of rights that are commonly characterized as property.'"[13] In essence, net neutrality grants content providers a per-

9 *See* Framework for Broadband Internet Serv., 25 FCC Rcd. 7866 (June 17, 2010) [hereinafter Broadband Framework NOI] (notice of inquiry).

10 *See* Jack M. Balkin, *Remarks at FCC Workshop on Speech, Democratic Engagement, and the Open Internet*, BALKINIZATION (Dec. 16, 2009), http://balkin.blogspot.com/2009/12/remarks-at-fcc-workshop-on-speech.html. The parties agree on the need to block harmful content such as obscene material and spam. The net neutrality debate revolves around delivery of lawful content.

11 *See* Randolph J. May, *Net Neutrality Mandates: Neutering the First Amendment in the Digital Age*, 3 ISJLP 197, 203–04 (2007); Laurence H. Tribe & Thomas C. Goldstein, *Proposed "Net Neutrality" Mandates Could Be Counterproductive and Violate the First Amendment*, FCC.GOV (Oct. 19, 2009), http://fjallfoss.fcc.gov/ecfs/document/view?id=7020375998.

12 *See* Turner Broad. Sys., Inc. v. FCC (*Turner II*), 520 U.S. 180, 185 (1997); Turner Broad. Sys., Inc. v. FCC (*Turner I*), 512 U.S. 622, 653–68 (1994) (holding that the First Amendment protects cable operators' right of editorial control over content transmitted across their networks, but that statute requiring cable companies to carry certain local broadcast channels is a content-neutral restriction that satisfies intermediate scrutiny).

13 Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 433 (1982) (quoting Kaiser Aetna v. United States, 444 U.S. 164, 176 (1979)); *see also* Nollan v.

manent virtual easement across privately owned broadband networks to deliver content to end-users. In other contexts, the Supreme Court has made clear that "a 'permanent physical occupation' has occurred [for Fifth Amendment purposes] where individuals are given a permanent and continuous right to pass to and fro" across private property.[14] Net neutrality proponents may be correct that "[u]nder the First Amendment Congress can make both telephone and cable companies into common carriers who must take on all traffic" and therefore as a constitutional matter, "Congress can certainly require a much milder non-discrimination requirement like network neutrality."[15] But "[i]t is a separate question . . . whether an otherwise valid regulation so frustrates property rights that compensation must be paid."[16]

This Article argues that under the Supreme Court's Takings Clause jurisprudence, the Commission's proposed net neutrality rules likely effect a permanent physical occupation of private broadband networks and therefore constitute a per se taking of broadband providers' property. Alternatively, net neutrality may constitute a regulatory taking under the *Penn Central* ad hoc balancing test.[17] If so, the Commission lacks the authority to adopt its proposed regulations because it cannot assure that just compensation will be paid to broadband providers. At the very least, the Takings Clause issue raises a serious constitutional question regarding the Commission's authority to adopt net neutrality regulations sua sponte, particularly when combined with potential First Amendment issues and the D.C. Circuit's recent skepticism regarding the Commission's authority to regulate Internet providers. Given this serious constitutional question, this Article recommends that the Commission seek explicit congressional authorization for its "Open Internet" Initiative rather than pursuing

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Cal. Coastal Comm'n, 483 U.S. 825, 831 (1987) (reiterating language from *Loretto* and *Kaiser Aetna*).

14 *Nollan*, 483 U.S. at 832.

15 Balkin, *supra* note 10.

16 *Loretto*, 458 U.S. at 425; *see also* United States v. Sec. Indus. Bank, 459 U.S. 70, 74–75 (1982) ("It may be readily agreed that [the statute] is a rational exercise of Congress' authority under Art. I . . . . Such agreement does not, however, obviate the additional difficulty that arises when that power is sought to be used to defeat traditional property interests. [Congress'] power is subject to the Fifth Amendment's prohibition against taking private property without compensation. Thus, however 'rational' the exercise of [Congress'] power may be, that inquiry is quite separate from the question whether the enactment takes property within the prohibition of the Fifth Amendment." (citations omitted)).

17 *See* Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 127–28 (1978).

net neutrality on its own initiative by reclassifying broadband Internet service as a Title II telecommunications service.

I. BROADBAND DEVELOPMENT AND THE NET NEUTRALITY DEBATE

Before examining the constitutional implications of the Commission's recent foray into net neutrality, it is helpful to chart a brief history of the development of the broadband network and the advent of the net neutrality debate.

A. The Telecommunications Act of 1996

In one sense, the origins of net neutrality concerns lie in the Telecommunications Act of 1996,[18] Congress's attempt to overhaul the telecommunications industry to meet the anticipated challenges of the twenty-first century.[19] At the time, the wire-based telecommunications industry was divided into two discrete "monoline" segments: wireline telephone companies, which offered voice service as a common carrier over the publicly switched telephone network under Title II of the Communications Act of 1934,[20] and cable companies, which offered wire-based video service under Title VI of the Act.[21]

Before the 1996 Act, a quarter-century of regulatory policy had reinforced the sharp voice/video divide in the telecommunications industry. The Commission had enforced a general ban on cross-ownership of telephone and cable networks since 1970, with limited exceptions.[22] The Cable Communications Policy Act of 1984[23] expanded and reinforced this ban by generally prohibiting common carriers, such as the local telephone companies, from providing video programming over their networks.[24] Similarly, most local telephone

18 *See* Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 47 U.S.C.).

19 *See* Daniel A. Lyons, *Technology Convergence and Federalism: Who Should Decide the Future of Telecommunications Regulation?*, 43 U. MICH. J.L. REFORM 383, 383–84 (2010).

20 Pub. L. No. 73–416, 48 Stat. 1064 (codified as amended at 47 U.S.C. §§ 151–614 (2006)).

21 *See id.*

22 *See* Applications of Telephone Companies for Section 214 Certificates for Channel Facilities Furnished to Affiliated Community Antenna Television Systems, 21 F.C.C. 307, 328 (1970) (final report and order).

23 Pub. L. No. 98-549, 98 Stat. 2779 (codified as amended in scattered sections of 47 U.S.C.).

24 *See id.* § 2, 98 Stat. at 2785–86 (amending Communications Act of 1934, Pub. L. No. 73-416, 48 Stat. 1064 (codified as amended at 47 U.S.C. § 533(b)), *repealed by* Telecommunications Act of 1996, Pub. L. No. 104-104, tit. 3, § 302(b)(1), 110 Stat. 124; PETER W. HUBER ET AL., THE TELECOMMUNICATIONS ACT OF 1996, at 84 (1996).

companies had received exclusive telephone franchises from states in exchange for rate regulation and universal service obligations, with the Commission's blessing.[25]

The 1996 Act sought to infuse the industry with competition at every level, in part by demolishing the artificial video/voice barrier and instilling "intermodal" competition between telephone companies and cable operators. The 1996 Act repealed the Cable Act's prohibition on the provision of video services over telephone lines.[26] As Peter Huber notes, this provision came just in the nick of time: several federal courts had held that this prohibition violated the First Amendment rights of telephone companies, and the issue had been argued before the Supreme Court in December of 1995, where the general consensus was that the Justices were likely to agree, perhaps unanimously.[27] At the same time, the 1996 Act preempted all state and local laws that "prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."[28] This provision eliminated state protection of local telephone monopolies and effectively allowed cable companies to enter the telephone business.

At the time, however, physical network constraints made intermodal competition seem more of a long-term aspiration than a realistically achievable goal. In particular, local telephone networks relied primarily upon twisted-pair copper wires. These wires were adequate for conveying voice conversations but lacked the speed and capacity necessary to deliver consistent, high-quality video signals comparable to those of the cable company. By comparison, the coaxial cable deployed by cable companies had somewhat higher bandwidth than their telephone counterparts. So while technological challenges inhibited telephone companies' proposed expansion into video service, cable companies found it easier to expand in the other direction. By 2002, the cable industry had attracted approximately two million customers for phone service, suggesting that the 1996 Act's dream of

25 *See* HUBER, *supra* note 24, at 86.

26 *Id.* at 84.

27 *Id.* at 84–85. The adoption of the Telecommunications Act led the Court to dismiss the case as moot. U.S.W., Inc. v. United States, 48 F.3d 1092 (9th Cir. 1995), *vacated as moot*, 516 U.S. 1155 (1996); Chesapeake & Potomac Tel. Co. v. United States, 42 F.3d 181 (4th Cir. 1994), *vacated as moot*, 516 U.S. 415 (1996); *see* HUBER, *supra* note 24, at 86.

28 47 U.S.C. § 253(a) (2006).

intermodal competition could soon reach at least the voice segment of the communications market.[29]

B. The Growth of Broadband

Intermodal competition was boosted by the advent of a third service that the 1996 Act treated almost as an afterthought: Internet access.[30] Residential Internet access became commercially available in the mid-1990s.[31] End-users initially accessed the Internet through "narrowband" dial-up connections that transferred information at relatively slow speeds. In short, a dial-up end-user would use a computer modem to call a local telephone number controlled by an Internet Service Provider (ISP) such as America Online (AOL). ISP equipment would then convert that analog telephone call into an Internet connection, allowing the end-user's computer to transmit and receive data.[32] But as consumers became more web-savvy and demanded more (and more intensive) Internet applications, dial-up ISPs found themselves facing the same problem that stalled intermodal competition for video service: analog calls over twisted-pair copper wire simply lacked the capacity to meet consumers' growing appetites for bandwidth-intensive applications.

To satisfy this consumer demand, cable companies began to offer broadband service over their coaxial cable lines, which were capable of higher data transmission speeds than the legacy telephone company networks.[33] As cable modem service caught on, telephone com-

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29 *See History of Cable Television*, NAT. CABLE & TELECOMM. ASS'N, http://www.ncta.com/About/About/HistoryofCableTelevision.aspx (last visited Dec. 29, 2010).

30 *See* Christopher S. Yoo, *Beyond Network Neutrality*, 19 HARV. J.L. & TECH. 1, 2 (2005) ("Having largely failed to take the Internet into consideration when enacting the Telecommunications Act of 1996, Congress is preparing to reenter the fray as it begins work on its second major overhaul of the communications laws in less than a decade." (footnote omitted)).

31 *See* Michael J. Santorelli, *Rationalizing the Municipal Broadband Debate*, 3 ISJLP 43, 51 (2007). As Santorelli notes, AOL is often credited as the first company to offer mass-market dial-up Internet access. *See id.* at 51 n.32.

32 *See id.* at 51–52; *see also* Keith Evans, *How Does Dial Up Work?*, eHOW, http://www.ehow.com/how-does_4570408_dial-up-work.html (last visited Dec. 29, 2010) (describing dial-up Internet).

33 *See* Santorelli, *supra* note 31, at 53. As Santorelli explains, coaxial cable is capable of transmitting both cable television signals and broadband signals at the same time over the same wire, by sending them at different frequencies. Equipment at the end-user's home (i.e., a cable set-top box and a cable modem) can distinguish between frequencies and route each signal stream to the appropriate end-user device. *Id.* Because the broadband signal effectively receives its own "path" on the cable line,

panies developed Digital Subscriber Line (DSL) service as a competing broadband platform that transmitted data more efficiently over their copper wires. At the risk of simplification, DSL did for copper wires what cable modems did for coaxial cable: it separated information traveling over the wire into two streams, which allowed data to move more rapidly through the network with minimal interference from voice traffic.[34]

C. The "Open Access" Debate

The advent of broadband communication threatened to render dial-up ISPs, such as AOL, obsolete. DSL and cable modem service offered customers access to the Internet at much greater speeds than dial-up ISPs could offer. Moreover, broadband Internet access was often bundled with video or voice service, meaning customers could simply add Internet service to their existing accounts without needing to establish service with a separate provider.[35] To survive, ISPs sought to gain access on a wholesale level to the facilities that cable and telephone companies used to provide broadband service, so they could package that high-speed transmission with their own Internet access service and thus compete in the broadband market.[36] Their arguments for "open access" relied upon the regulatory uncertainty surrounding the proper classification of broadband service under the Communications Act.[37] In some ways, these arguments laid the groundwork for the current net neutrality debate.

In 1998, the Commission ruled that the transmission component of DSL service—the carrying of Internet data signals over the telephone company's DSL lines—was a "telecommunications service"

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the line can transmit significantly more data at significantly greater speeds than was available over dial-up. *Id.* at 52.

34 Equipment at the telephone company office recognizes the separate digital signal and allows it to bypass the switches that the company uses to route voice traffic. Filters in the end-user's home similarly separate voice and data traffic and route the appropriate signal to the appropriate device. By giving data traffic a dedicated channel on the copper wire, free of potential interference from analog voice traffic, and allowing that data traffic to bypass the switches that route voice signals, DSL service boosts data traffic to speeds comparable to cable modem service. *See id.* at 52–53.

35 *See* Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, 17 FCC Rcd. 4798, 4804 (2002) [hereinafter Cable Modem Order] (declaratory ruling and notice of proposed rulemaking).

36 *See* Deployment of Wireline Services Offering Advanced Telecommunications Capability, 13 FCC Rcd. 24,011, 24,016–17 (1998) (memorandum opinion and order, and notice of proposed rulemaking).

37 *See generally id.* (discussing the classification of DSL services under the Communications Act).

under Title II of the Act and, therefore, was subject to common carrier obligations.[38] The upshot of the ruling was that, while telephone companies could sell broadband Internet access directly to consumers, they also had to make their DSL lines available as a wholesale input to unaffiliated ISPs to bundle with their own Internet access services.[39] But the Commission refused to offer similar guidance regarding cable modem service, which left open the question whether cable companies were subject to a similar "open access" requirement.[40]

The question of whether unaffiliated ISPs should receive access to cable networks raged for years in academic circles, Commission proceedings, and multiple court cases.[41] Finally, in 2005, the Supreme Court upheld the Commission's determination that cable modem service was properly classified under Title I and, therefore, was not subject to common carrier requirements.[42] The Commission reasoned that open access requirements were unnecessary in light of the robust market for broadband access, and could in fact prove harmful if excessive regulation hampers future broadband deployment.[43] Having received the Supreme Court's blessing, the Commission promptly reclassified DSL service as a Title I (rather than a Title II) service[44] and explained that wireless Internet access and broadband over power lines would be similarly classified.[45] In this way, the

38 *See id.* at 24,030–31. The Commission explained that high-speed Internet access via DSL is actually two bundled services: access to the Internet, which is a largely unregulated Title I information service, and underlying transmission of information over the DSL line, which is a Title II common carrier service. *Id.*

39 *See id.*; Lyons, *supra* note 19, at 403.

40 *See* Lyons, *supra* note 19, at 403–04.

41 *See* Jonathan E. Nuechterlein, *Antitrust Oversight of an Antitrust Dispute: An Institutional Perspective on the Net Neutrality Debate*, 7 J. ON TELECOMM. & HIGH TECH. L. 19, 25 (2009). For a more detailed discussion of the open access debate and the problems caused by this regulatory uncertainty, see Lyons, *supra* note 19, at 403–04.

42 *See* Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs., 545 U.S. 967, 1000 (2005) (affirming the Cable Modem Order and the Commission's conclusion that, while cable modem service "used telecommunications" in the sense that the transportation of information from one point to another is an essential component of the service, this transport was only one component of integrated cable modem service and not conceptually separate from the end-product).

43 *See* Cable Modem Order, *supra* note 35, at 4800–02.

44 *See* Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, 20 FCC Rcd. 14,853, 14,862 (2005) (report and order, and notice of proposed rulemaking).

45 *See* Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks, 22 FCC Rcd. 5901, 5909 (2007) [hereinafter Wireless Broadband Order] (declaratory ruling); United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line, 21 FCC Rcd. 13,281, 13,281 (2006) (memorandum opinion and order).

Commission hoped to "establish a consistent regulatory framework across broadband platforms by regulating like services in [a] similar manner."[46]

Thus freed of the requirement to sell portions of their bandwidth at wholesale rates to competitors and assured of the Commission's position that robust competition among providers and a light regulatory touch would maximize broadband deployment, the cable and telephone industries invested tens of billions of dollars in the last decade, mostly (though not entirely) since the 2005 ruling, to upgrade their networks in response to burgeoning consumer demand.[47] Specifically, both industries began upgrading their networks to use fiber-optic cable. Unlike twisted-pair copper and coaxial cables, fiber-optic cables do not depend upon the transmission of electricity through metal to send voice, video, or data signals. Instead, the signals are transmitted by beams of light traveling at very high speeds through hollow, flexible glass tubes as thin as a human hair, thousands of which are bundled together into a typical fiber-optic line.

Fiber-optic cable held the promise of a next-generation broadband service that delivered data at speeds even greater than DSL or cable modem service.[48] But fiber-optic cables are expensive, several times the cost of their copper-wire and coaxial counterparts. Cable and telephone companies were reluctant to assume such a significant, multiyear capital improvement project unless they could be reasonably certain they could earn a return on that investment.[49] AT&T and

46 *See* Wireless Broadband Order, *supra* note 45, at 5902.

47 *See* Thomas W. Hazlett & Anil Caliskan, *Natural Experiments in U.S. Broadband Regulation*, 7 REV. NETWORK ECON. 460, 477 (2008) (analyzing growth in broadband opportunities and competition following the Commission's order to lift Title II obligations on DSL service).

48 *See* JIM BALLER & CASEY LIDE, BALLER HERBST LAW GRP., CAPTURING THE PROMISE OF BROADBAND FOR NORTH CAROLINA AND AMERICA 11 (June 2008), *available at* http://www.narucmeetings.org/presentations/e-NCBBReportJan08.pdf ("Of all current technologies, the most robust is fiber optics. Hair-thin glass fiber optic cables can carry virtually infinite amounts of digital information encoded on light beams traveling at nearly the speed of light between lasers at the ends of the cables."), *quoted in* Susan P. Crawford, *Transporting Communications*, 89 B.U. L. REV. 871, 908 n.183 (2009).

49 As Michael Santorelli has noted, fiber-optic cable is not a new phenomenon. The telephone companies deployed some "rings" of fiber-optic cable as early as the 1980s to carry voice calls on heavy-traffic long distance corridors. *See* Santorelli, *supra* note 31, at 62. But the telephone companies were wary of overinvesting in fiber beyond those corridors, in part because of the lessons of the dot-com boom. During the 1990s, start-up companies laid millions of miles of fiber throughout the country, with dreams that the new network would carry a wide range of next-generation Internet applications. When the dot-com bubble burst, many of these companies

Verizon faced the most costly upgrade projects, needing to replace literally millions of miles of copper wire with fiber-optic cable, and therefore looked to additional revenue streams beyond mere data transport to support that investment. This way, telephone companies could finally achieve Congress's dream of creating true intermodal competition in the multichannel video market by becoming the cable industry's first true wire-based competitors.[50]

D. Origins of Net Neutrality

As the Open Access debate played out, and it became clear that the Commission intended to take a light regulatory touch to broadband, commentators such as Lawrence Lessig and Tim Wu grew increasingly concerned with the possibility that broadband providers would someday use their control of their networks to discriminate against certain content and application providers.[51] While there is an incalculable number of these providers operating on the Internet, the broadband path from the Internet to end-user consumers must neces-

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went bankrupt, stranding these networks and causing what has become known as a "fiber glut." *See id.* at 62–63. The telephone companies were perhaps wary of making the same mistake and therefore invested more heavily in fiber to individual neighborhoods and homes only once it became clear that the vaunted "triple-play" of voice, video, and Internet service would guarantee a return on this huge investment. *See id.* at 63.

50 Through Project U-Verse (formerly known as Project Lightspeed), AT&T has embarked upon a fiber-to-the-node (FTTN) model that uses fiber-optic cable from the local exchange office to neighborhood nodes, then traditional twisted-pair copper wire from the neighborhood node to individual homes. *See generally Media Kit: AT&T U-Verse*, AT&T.COM, http://www.att.com/gen/press-room?pid=5838 (last visited Dec. 29, 2010) (describing the U-Verse service). Verizon's FiOS program is centered upon a more ambitious, and more expensive, fiber-to-the-home (FTTH) system that relies on fiber-optic cable exclusively throughout much of the FiOS footprint. *See generally FiOS TV Features*, VERIZON.COM, http://www22.verizon.com/residential/fiostv (describing FiOS service). Both companies have heavily touted their respective video offerings as a significant source of future revenue and an essential component of a profitable fiber-based network. These investments differ in kind from the type of fiber installations that brought about the "fiber glut" of the 1990s: the dot-com companies largely invested in redundant (and therefore inefficient) networks between hubs along what they anticipated to be high-traffic corridors, without installing additional fiber from those hubs to individual neighborhoods or consumers. *See* Santorelli, *supra* note 31, at 63.

51 *See* LAWRENCE LESSIG, THE FUTURE OF IDEAS 46–48, 155–76, 246–49 (2001); Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. ON TELECOMM. & HIGH TECH. L. 141, 145–46, 165–68 (2003) (arguing that net neutrality is needed for innovation, and proposing an antidiscrimination rule to achieve net neutrality by "forbid[ding] broadband operators, absent a showing of harm, from restricting what users do with their Internet connection").

sarily go through one of a handful of companies that operate the nation's telecommunications networks. Lessig, Wu, and others are concerned that, should broadband providers use this control to block or degrade certain applications or content, it would impair the creativity and innovation in applications and content that have helped the Internet grow so explosively.[52] Chairman Genachowski has analogized this concern as the need to keep the "onramps to the Internet open."[53]

Net neutrality opponents' response has been two-fold. First, they argue that net neutrality seems largely to be a solution in search of a problem. Broadband providers generally have not blocked the Internet's "onramps" to particular applications or content.[54] As the Commission has noted, the broadband market is competitive, with the overwhelming majority of American consumers having a choice of two or more providers.[55] Any broadband provider that blocks or degrades services that consumers want is likely to face market-based repercussions as consumers flock to their competitors (in addition to possible legal action if the interference violates antitrust law).[56] And that competitive pressure will only grow as wireless broadband matures into a legitimate third platform for broadband service.[57]

Second, broadband providers highlight the tens of billions of dollars they have invested in building and maintaining the fiber-optic networks that make broadband Internet access possible. This is a capital risk that unaffiliated content providers have not assumed and upon which the broadband providers must earn a decent rate of return.

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52 *See* LESSIG, *supra* note 51, at 46–48, 155–76, 246–49.

53 *See* Genachowski, *supra* note 3.

54 *But see infra* text accompanying notes 74–80 (discussing the Comcast and Madison River investigations). Net neutrality opponents typically dismiss such cases as aberrations that the Commission could, and did, handle through adjudication without the need for broad-reaching network neutrality rules. Of course, the D.C. Circuit's reversal of the Commission's Comcast order calls this assumption somewhat into question.

55 *See, e.g.*, Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, 23 FCC Rcd. 9615, app. B at 9677 tbl.15 (2008) (noting that ninety-nine percent of zip codes are served by two or more high-speed Internet providers); *see also* CONNECTING AMERICA, *supra* note 7, at 37 (noting that over eighty percent of households are in areas with at least two, and sometimes three or more, broadband service providers).

56 *See* Nuechterlein, *supra* note 41, at 39–43.

57 *See id.*; *see also* Comments of Verizon and Verizon Wireless at 21–31, Preserving the Open Internet Broadband Industry Practices, GN Docket No. 09–191 (FCC filed Jan. 14, 2010) [hereinafter Verizon Comments], *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7020378541 (describing competitive forces and their effect on the industry's innovation).

Comcast, Verizon, AT&T, and others invested this capital in part to augment their own ability to offer consumers bandwidth-intensive Internet applications and content of their own, most notably enhanced video services. Should consumer demand for bandwidth-consuming applications outstrip bandwidth supply (as occurred with dial-up), broadband providers argue that they should be able to grant priority access to the delivery of their own content, or to third-party providers willing to pay for priority access, so as to continue to recover the capital they have invested in their networks.[58] Christopher Yoo also argues that allowing service providers to choose how to manage their bandwidth would encourage innovation in the "onramp" market by making it economically viable for new experimental broadband business models to challenge existing broadband providers.[59]

Before proceeding further, it is important to highlight the contours of the debate. Net neutrality focuses upon the potential restrictions, if any, that broadband providers can put upon Internet content and application providers, such as Google or Hulu. It is not concerned with the fees that broadband providers charge end-user consumers for Internet access. All parties agree that broadband providers should be permitted to charge different prices to different end-user consumers, depending upon how much bandwidth the consumer uses or what speeds the consumer demands. So, while Chairman Genachowski has repeatedly referred to net neutrality as regulating the "onramp to the Internet," it is perhaps more accurate to describe it as regulating the Internet's "offramp." The focus is not the flow of information from the consumer to the Internet, but from the Internet to the consumer.

In a sense, the ongoing debate about net neutrality is an argument about the continued vitality of the "best efforts" Internet to meet future consumer demand. As Robert Atkinson and Philip Weiser explain, the Internet developed as an "end-to-end" open architecture, within which a content or application provider could offer its goods to the public simply by placing a software program on a publicly available server.[60] This wide-open Internet was, and is, comprised of "best

58 *See* Christopher S. Yoo, *Would Mandating Broadband Network Neutrality Help or Hurt Competition? A Comment on the End-to-End Debate*, 3 J. ON TELECOMM. & HIGH TECH. L. 23, 67 (2004).

59 *See id.* at 61 ("[A]llowing last-mile broadband providers to differentiate their product offerings can help prevent declining-cost industries from devolving into natural monopolies.").

60 *See* ROBERT D. ATKINSON & PHILIP J. WEISER, INFO. TECH. & INNOVATION FOUND., A "THIRD WAY" ON NETWORK NEUTRALITY 4 (2006), *available at* http://www.itif.org/files/netneutrality.pdf.

effort" networks, meaning "networks that deliver any and all digital content based on the best guess and effort as to how to forward it along to its final destination."[61] Content is broken into thousands of "packets," each of which are routed through independent network paths to the end-user, whose computer reassembles them into the requested content. The network provider—today's broadband access provider—makes no quality-of-service guarantee regarding how quickly particular content can be delivered, or even whether particular content will even arrive at its destination.

As high-bandwidth applications proliferate across the web, it is unclear whether a "best efforts" architecture remains the ideal model. The "best efforts" Internet evolved from a download model of data transmission: end users downloaded data from public servers in short, discrete bursts. But more and more activity on today's Internet is much more interactive.[62] Applications such as two-way video communication or telemedicine[63] require real-time transmission of large amounts of data at high speed and with low latency.[64] Such applications require a minimum level of speed and performance that "best efforts" networks do not guarantee. Other applications, such as multichannel video service, still fit the download meme but must send a constant stream of bandwidth-consuming data to each end-user, thus consuming far more network capacity than earlier, more traditional download applications entail.

When networks get congested, routers queue incoming data packets so they can proceed in an orderly fashion and sometimes start dropping packets randomly to ease congestion. With respect to e-mail or webpage data, a delay in packet delivery or an occasional dropped packet is almost imperceptible to the end-user. But similar delays with respect to streaming video or a two-way voice application could degrade the conversation sufficiently to render the application useless.

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61 *Id.*

62 *See* Christopher Yoo, *Comments on Innovation, Investment, and the Open Internet Workshop*, OPENINTERNET.GOV (Jan. 13, 2010), http://blog.openinternet.gov/?p=255.

63 Telemedicine leverages broadband networks to allow medical care facilities to communicate remotely with physicians in a distant community to enhance the quality of medical care. It is most commonly used to bring high-quality medical care to rural communities. *See* Mignon Clyburn, Comm'r, FCC, Broadband Adoption: Traveling the Consumer's Last Mile, Remarks at the Joint Center for Political and Economic Studies (Sept. 21, 2009), *available at* 2009 WL 3012591 (explaining how broadband facilitates the use of telemedicine in rural communities).

64 *See* Yoo, *supra* note 62. Speed refers to the amount of time it takes a packet to travel from origin to destination. Latency refers to the amount of packet loss that occurs while en route. *Id.*

In these cases, broadband providers make a reasonable argument for a "managed network" that can identify certain types of data as more important than others and give that data priority in the event of network congestion or some other factor rendering the simultaneous delivery of all requested content impossible.[65] In essence, broadband providers envision a content delivery service similar to that of the U.S. Post Office: all content and application providers can use the network for "first class" mail, but those companies who seek to purchase "priority mail" or "express mail" services could receive faster and higher-quality delivery.[66] This is known as "tiered pricing."[67]

On the other hand, allowing certain content providers to pay for high-speed access, while relegating non-payers to the network's "slow lane," would seem to give an unfair advantage to well-capitalized, established companies in a medium that has historically rewarded innovation and entrepreneurship outside the mainstream. In the words of Atkinson and Weiser, "[u]nder the terms of the current debate, this development—of managed private Internet networks—is either an opportunity for new innovations or a threat to the Internet's open environment. In reality, however, it is both."[68]

E. Lurching Toward a Net Neutrality Policy

This early debate spawned a series of proposed bills on net neutrality. At one point in 2005 there were four separate net neutrality bills in some stage of the Capitol Hill process, which would have imposed varying levels of obligations on telecommunications network providers.[69] But the net neutrality debate turned out to be more smoke than fire: Congress has yet to pass legislation that would explicitly subject broadband providers to nondiscrimination obligations.

This does not mean, however, that policymakers had turned a deaf ear to net neutrality concerns. As part of the Commission's 2005 order reclassifying wireline broadband as a Title I service, the Commission issued a nonbinding policy statement outlining four princi-

65 *See* Verizon Comments, *supra* note 57, at 81–84; Yoo, *supra* note 58, at 67.

66 *See* Verizon Comments, *supra* note 57, at 78.

67 *See id.* at 56.

68 ATKINSON & WEISER, *supra* note 60, at 4–5.

69 Several congressional committees discussed net neutrality, most notably the Senate Subcommittee on Commerce, Science, and Transportation, where, at a legislative mark-up session, Chairman Ted Stevens famously stated that the Internet is "not a big truck" but rather "a series of tubes." *Hearing on S. 2686 Communications, Consumers' Choice, and Broadband Deployment Act of 2006 Before the S. Commerce Comm.*, 109th Cong. (2006) (audio recording available at http://www.publicknowledge.org/node/497). Senator Stevens was widely ridiculed for these comments.

ples that would guide its approach to the Internet.[70] Specifically, the Commission stated the following:

> [T]o ensure that broadband networks are widely deployed, open, affordable, and accessible to all consumers, the Commission adopts the following principles:
>
> To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to access the lawful Internet content of their choice.
>
> To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to run applications and use services of their choice, subject to the needs of law enforcement.
>
> To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to connect their choice of legal devices that do not harm the network.
>
> To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to competition among network providers, application and service providers, and content providers.[71]

Notably, the policy statement also noted that these principles "are subject to reasonable network management" and are in any case not formally binding until they are adopted as part of a rulemaking proceeding.[72] In a separate statement, then-Chairman Kevin Martin expressed his view that the increasing competition within the market for broadband providers rendered it unnecessary to promulgate formal, binding net neutrality rules.[73]

The Commission's decision to issue its "Four Freedoms" policy statement may have been influenced by its concurrent investigation of blocking allegations by Madison River Communications LLC, a small rural telephone and DSL provider.[74] Vonage, a provider of Voice-over-Internet-Protocol (VoIP) service, complained that Madison River was blocking ports that were typically used by Vonage customers to

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70 *See* Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, 20 FCC Rcd. 14,986, 14,988 (2005) (policy statement).

71 *Id.* (emphasis omitted).

72 *Id.* at 14,988 n.15.

73 *See* Press Release, FCC, Chairman Kevin J. Martin Comments on Commission Policy Statement (Aug. 5, 2005), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-260435A2.pdf.

74 *See* Madison River Commc'n, LCC & Affiliated Cos., 20 FCC Rcd. 4295 (2005) (order and consent decree).

make VoIP telephone calls, presumably because VoIP service was competing directly against the company's traditional telephone service.[75] Following a public uproar, Madison River agreed to a consent decree preventing it from blocking VoIP ports or otherwise impeding its customers from using VoIP applications.[76] Although the *Madison River* order was not binding law, net neutrality advocates seized upon the order as evidence that their concerns were not unfounded.

Momentum for net neutrality reform increased with the Commission's 2008 sanction of Comcast Corporation for unreasonable network management practices.[77] Comcast experienced network congestion in certain neighborhoods caused by bandwidth-hogging peer-to-peer file sharing programs such as BitTorrent. To solve this problem, Comcast secretly and selectively targeted packets stemming from such applications and delayed or terminated these transmissions by forging reset packets purporting to be from the requesting computer and requesting termination of the download.[78] The Commission found that "Comcast's practices contravene industry standards and have significantly impeded Internet users' ability to use applications and access content of their choice" in a manner that does not constitute "reasonable network management."[79] The Commission was particularly distressed by the company's deceitful behavior toward its end-user consumers, to whom it owed a duty of clear disclosure regarding the limitations it would impose upon the services they purchased.[80] The Commission therefore ordered Comcast to cease its practices and instead adopt a "protocol-agnostic network management technique" with clear disclosure to consumers regarding its network management policies.[81] The Comcast Order marked the first time that the Commission had enforced net neutrality–like principles against a broadband provider; the controversy and the Commission's response would prove to be the crystallizing event that finally brought net neutrality to the forefront of telecommunications policy.

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75 *See id.* at 4297.

76 *See id.*

77 *See* Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13,028, 13,058 (2008) [hereinafter Comcast Order] (memorandum opinion and order).

78 *Id.* at 13,030–31.

79 *Id.* at 13,058.

80 *See id.* at 13,059.

81 *Id.* at 13,059–60.

F. The Open Internet Initiative and the "Third Way"

1. The Open Internet Initiative

As the Comcast hearing played out, net neutrality became a hot issue in the 2008 presidential campaign, most notably in the Democratic primary.[82] After the election, President Obama made good on his campaign promise to "take a backseat to no one in [his] commitment to network neutrality."[83] He nominated noted network neutrality enthusiast Julius Genachowski as chairman of the Commission.[84] Shortly thereafter, the Commission promulgated a notice of proposed rulemaking known as the "Open Internet" Initiative, which sought, for the first time, to create binding net neutrality rules on broadband access providers.[85]

First, the Commission proposed to codify the four freedoms listed in the non-binding 2005 policy statement as binding rules of network management.[86] But rather than frame them as general freedoms to which consumers are entitled, the proposed rules would place binding obligations on broadband providers specifically.[87] Therefore, "[s]ubject to reasonable network management," a broadband service provider cannot prevent its users from: (1) "sending or receiving the lawful content of the user's choice over the Internet," (2) "running the lawful applications or using the lawful services of the user's choice," or (3) "connecting to and using on its network the user's choice of lawful devices that do not harm the network."[88] It also could not (4) "deprive any of its users of the user's entitlement to competi-

82 Then-Senator Hillary Clinton was initially silent on the topic of net neutrality, leading many to question whether the issue would be a priority in her administration. In November 2007, then-Senator Obama seized upon the issue, using a speech at Google's headquarters as a backdrop to endorse net neutrality. Placed on the defensive, Senator Clinton quickly brandished her own net neutrality credentials, leading to the two candidates co-sponsoring legislation that would have adopted strong restrictions on broadband providers' ability to engage in access tiering. *See* Nuechterlein, *supra* note 41, at 20 n.2.

83 *Obama Unveils Innovation Agenda at Google*, ORGANIZING FOR AM. (Nov. 14, 2007), http://www.barackobama.com/2007/11/14/obama_unveils_innovation_agend.php (quoting Sen. Barack Obama).

84 *See* 155 CONG. REC. D300 (daily ed. Mar. 23, 2009) (nomination received).

85 *See* Net Neutrality NPRM, *supra* note 2, at 62,638.

86 *See id.* at 62,644.

87 *See id.* at 62,645. The proposed rules would apply to broadband network providers such as Verizon, Comcast, and others that sell Internet access to the public at non-dial-up speeds, but not to suppliers of localized WiFi services, such as local coffee houses, which rely upon broadband network providers to send and receive data transmission from the Internet. *See id.* at 62,640.

88 *Id.* at 62,645 (emphasis omitted).

tion among network providers, application providers, service providers, and content providers."[89] The Commission stated that codification of these principles "would support our goals of protecting consumers and encouraging innovation and investment" over the Internet.[90]

The Commission also proposed two additional rules that were not included in the original "Four Freedoms" policy statement.[91] The fifth rule would state that, "[s]ubject to reasonable network management, a provider of broadband Internet access service must treat lawful content, applications, and services in a nondiscriminatory manner."[92] Notably, this proposed rule shifts the debate away from the obligations that broadband providers would owe to their paying end-user customers, which had been the focus of the "Four Freedoms" statement and spawned the Commission's sanction of Comcast. The Commission made clear that this fifth principle "would not prevent a broadband Internet access service provider from charging subscribers different prices for different services" or for tiered service at different speeds.[93] Rather, the nondiscrimination rule would prevent broadband providers from denying access to third-party content and application providers attempting to send material to the broadband provider's end-user. Broadband providers would also be unable to charge such providers for "enhanced or prioritized access to the subscribers of the broadband Internet access service provider."[94]

Finally, the Commission proposed a sixth principle of "transparency" requiring that broadband providers "disclose such information concerning network management and other practices as is reasonably required for users and content, application, and service providers to enjoy the protections specified in this part."[95] The Commission explicitly stated that this rule stems directly from its experiences with Comcast's refusal to disclose its practices to consumers (and to the Commission) during the BitTorrent investigation.[96]

But the proposed rules came with two large caveats that limit the scope of these six principles. First, each rule would be subject to "rea-

89 *Id.* (emphasis omitted).

90 *Id.*

91 *Id.* at 62,646–47.

92 *Id.* at 62,646 (emphasis omitted).

93 *Id.*

94 *Id.*

95 *Id.* at 62,648 (emphasis omitted).

96 *See id.*

sonable network management."[97] The Commission refused to define this carveback with specificity, preferring instead "to describe these concepts at a relatively general level and leave more detailed rulings to the adjudications of particular cases."[98] But it proposed that broadband providers generally be permitted to "reduce or mitigate the effects of congestion or to address quality-of-service concerns . . . [and] prevent the transfer of unlawful content [or] the unlawful transfer of content," even if doing so would otherwise run afoul of the six principles.[99] Of course, Comcast argued that its throttling of BitTorrent traffic was necessary to "reduce or mitigate the effects of congestion," yet the Commission rejected this argument.[100] The Commission's comments suggest that this carveback should be narrow and that the "reasonableness" of a particular network management practice likely turns upon whether it is narrowly tailored to support the Commission's nondiscrimination rule as closely as possible.[101] For example, the Commission has rejected the blocking or degrading of VoIP traffic to relieve congestion, unless the broadband provider puts the same restrictions on all other services that similarly affect bandwidth usage and have similar quality-of-service requirements.[102] It has also rejected the singling out of any particular content provider's traffic for blocking or deprioritization, absent some evidence that this particular provider's traffic was harmful or illegal.[103]

Second, the Commission floated the possibility of an exception for "managed or specialized services" that are provided over the same networks as broadband access but do not traverse the public Internet.[104] The Commission cites as possible examples: telemedicine, public safety communications, distance learning, and—importantly—AT&T's U-verse Internet Protocol Television service.[105]

97 *Id.* at 62,649. The Commission has similarly subjected the rules to the needs of law enforcement, public safety, and homeland security. *See id.*

98 *Id.*

99 *Id.* at 62,650 (emphasis omitted).

100 *See* Comcast Order, *supra* note 77, at 13,031–32, 13,055–56.

101 *See* Net Neutrality NPRM, *supra* note 2, at 62,650.

102 *See id.*

103 *See id.*

104 *See id.* at 62,651.

105 *See id.* It is worth noting that AT&T's IPTV service is structurally different from Verizon's FiOS service or video services offered by cable companies. Traditional cable service operates on a "push" model that sends all available video feeds through shared wires to neighborhoods, much like broadcasting. Consumers tap into that shared feed to view particular programs. By comparison, AT&T's service operates on a "request-send" model whereby individual users request specific programs from a central server, and only that program is sent directly to that consumer's home. Though

The proposed rules recognize that these speed- and latency-sensitive applications benefit from minimum performance guarantees that the "best efforts" Internet cannot deliver. At the same time, however, it is concerned that granting such exceptions, either by rule or by case-by-case adjudication, could lead such services to "supplant or otherwise negatively affect the open Internet."[106] The Commission thus invited comment on this trial balloon without providing much guidance regarding what the final scope of this exception may be, if any.

2. The *Comcast* Decision

Shortly after the deadline for comments to be submitted in response to the Open Internet Notice of Proposed Rulemaking, the D.C. Circuit Court of Appeals vacated the Commission's Comcast Order.[107] Without addressing the merits of Comcast's behavior or the Commission's sanction, the court ruled that the Commission lacked jurisdiction to regulate broadband providers' network practices.[108] The Commission freely acknowledged that nothing in the Communications Act gives it explicit authority to regulate broadband Internet providers.[109] Instead, the Commission relied upon Title I of the Act, which allows the Commission to regulate activities whose regulation is "'reasonably ancillary to the . . . effective performance of its statutorily mandated responsibilities.'"[110] The court ruled that the Commission failed to explain how controlling network management practices was reasonably ancillary to the regulation of activities within the agency's purview, such as telephone service, broadcast television, or cable service.[111] As a result, the court vacated the order.[112]

U-Verse uses IP protocol logic and shares physical lines with AT&T's broadband service, it travels on a private IP network that AT&T constructed specifically for video transport and therefore is not a broadband service. *See* Richard Binkley, *U-Verse IPTV*, HIGH DEFINITION BLOG (Sept. 25, 2007; 7:47 PM), http://www.highdefinitionblog.com/?page_id=286. Verizon has announced plans to shift its competing FiOS service to an IPTV model in most areas within the next few years. *See* Steven Kim, *Verizon FiOS Moving Towards IPTV*, ENDGADGET HD (Sept. 25, 2007), http://hd.engadget.com/2007/09/25/verizon-fios-moving-towards-iptv/.

106 Net Neutrality NPRM, *supra* note 2, at 62,651.

107 *See* Comcast Corp. v. FCC, 600 F.3d 642, 661 (D.C. Cir. 2010).

108 *See id.* at 644.

109 *See id.* at 644–645.

110 *Id.* at 644 (quoting Am. Library Ass'n v. FCC, 406 F.3d 689, 692 (D.C. Cir. 2005)).

111 *See id.* at 661.

112 *Id.*

3. The "Third Way" Proposal

Though the *Comcast* decision ostensibly addressed only whether a broadband provider could throttle BitTorrent traffic, its ramifications were far more profound. To assert its jurisdiction to adopt the "Open Internet" Initiative, the Commission had relied upon the same Title I argument at issue in the *Comcast* case—indeed, the Open Internet Notice of Proposed Rulemaking explicitly cited the now-defunct Comcast Order as authority on the point.[113] The D.C. Circuit's decision thus became a dagger pointed at the heart of the Commission's nascent net neutrality framework.

After *Comcast*, most argued that net neutrality could only be accomplished in one of two ways.[114] First, the Commission could wait for Congress to pass a new statute that explicitly gives the agency authority to regulate broadband providers. With a clear grant of statutory authority from Congress, the Commission would no longer need to rely upon its ancillary authority under Title I to reach broadband providers. Alternatively, the Commission could reclassify broadband service as a Title II telecommunications service, effectively reversing the 2002 cable modem order that gave rise to the *National Cable & Telecommunication Ass'n v. Brand X Internet Services*[115] decision and its analogous decisions governing broadband over telephone lines, wireless spectrum, and power lines.[116] This reversal would subject broadband providers to the panoply of regulations designed to regulate traditional telephone service, including the requirement under § 202 of the Act that providers not unjustly or unreasonably discriminate in the provision of service.[117]

Unsatisfied with the merits of these alternatives, Chairman Genachowski announced a plan that he dubbed "The Third Way."[118]

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113 *See* Net Neutrality NPRM, *supra* note 2, at 62,644 ("Consistent with the *Comcast Network Management Practices Order*, we may exercise jurisdiction under the Act to regulate the network practices of facilities-based broadband Internet access service providers.").

114 Technically, there could be a third option as well: identifying a fount of authority upon which Title I could attach that was not litigated in the *Comcast* case. But given that the Commission had already made its best arguments in favor of Title I authority and lost, this route is not promising.

115 545 U.S. 967 (2005).

116 *See supra* text accompanying notes 35–46.

117 *See* 47 U.S.C. § 202 (2006).

118 *See* Julius Genachowski, *The Third Way: A Narrowly Tailored Broadband Framework*, FCC, 1 (May 6, 2010), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-297944A1.pdf. Surprisingly, the Third Way proposal does not discuss at all the possibility that Congress could draft a new section of the Communications Act to address the Internet. Rather, Chairman Genachowski presents the false dichotomy of full

Chairman Genachowski proposed that, in accordance with the second alternative above, the Commission move quickly to reverse its earlier orders and reclassify the transmission component of broadband Internet service as a Title II service.[119] This move would restore the regulatory regime over DSL service that existed prior to the *Brand X* decision, but would apply a heretofore unknown bundle of regulatory obligations to broadband providers that were not legacy telephone companies. At the same time, Genachowski proposed exercising the Commission's forbearance authority[120] to shield broadband providers from some of the more onerous obligations that Title II places upon telephone companies that would be "unnecessary and inappropriate for broadband access service," such as the duty to interconnect with competitors.[121] The resulting regulatory framework would place a set of "Title II-lite" obligations upon broadband providers, including a § 202 obligation broad enough to encompass a net neutrality requirement.[122] In June 2010, the Commission issued a notice of inquiry and invited comments regarding the appropriate framework for regulating broadband Internet service.[123]

With the "Open Internet" Initiative and the Broadband Framework Notice of Inquiry, the Commission has for the first time considered imposing the binding restrictions that net neutrality proponents have long sought: real, binding limits on the ability of broadband providers to grant or deny third parties the right to access their networks, and on what terms. Of course, antitrust law already constrains broadband providers' ability to leverage their control of networks to harm competitors or otherwise seek an unfair advantage in other markets, just as it does most other commercial enterprises.[124] But otherwise, the Commission has stated repeatedly that broadband access is not subject to common carrier regulations, notably the requirement to provide nondiscriminatory service to all comers at just and reasona-

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Title II regulation (which the Chairman admits would be inappropriate) or continued regulation under Title I (which is effectively foreclosed by the *Comcast* decision). *Id.* at 4. This "Third Way" is thus an alternative to two unsatisfying alternatives but fails to consider the possibility that Congress, not the Commission, should be the ultimate decisionmaker regarding net neutrality.

119 *See id.* at 5.

120 *See* 47 U.S.C. § 160.

121 *See* Genachowski, *supra* note 118, at 5.

122 *See id.*

123 *See* Broadband Framework NOI, *supra* note 9, at 7866.

124 *See generally* Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, 540 U.S. 398, 406 (2004) (finding that the 1996 Act does not exempt the telecommunications industry from prosecution under antitrust laws); Nuechterlein, *supra* note 41, at 34–45 (discussing antitrust solutions to the net neutrality debate).

ble rates. Thus, broadband providers currently remain largely free to determine which entities can use their facilities and the terms of such use, just as any other property owner can determine the conditions of use of its property. While competitive pressure and present network capacities have led broadband providers largely to refrain from exercising this right of ownership, the ability to do so provided some level of comfort as Comcast, Verizon, and AT&T spent billions of dollars upgrading to fiber-optic cable. This investment would be recovered in part by the sale of advanced services, such as multichannel video distribution. As demand for bandwidth grows, the ability to move or exclude unaffiliated content helps assure that broadband providers can continue to provide advanced services to their end-user customers.[125]

The "Open Internet" Initiative and "Third Way" framework therefore severely constrict the bundle of property rights that comes with ownership of a broadband network. By denying broadband providers the right to exclude virtual trespassers from their networks, the proposed rules effectively grant application and content providers unfettered access to the physical wires that comprise the network. Were this a physical easement across network providers' property, the Supreme Court's Fifth Amendment jurisprudence would find little difficulty labeling the easement a permanent physical occupation of property by another, and thus a per se taking that requires compensation. There is no reason why the same principles should not apply to compelled access to broadband providers' physical networks. At the very least, the scheme interferes with broadband providers' reasonable investment-backed expectations and, therefore, warrants compensation as a regulatory taking. To explain why, one must examine the Court's modern takings jurisprudence and how it applies to electronic networks, a topic to which this Article now turns.

II. NET NEUTRALITY THROUGH THE LENS OF THE TAKINGS CLAUSE

A. Overview of Regulatory Takings Jurisprudence

The Fifth Amendment concludes with the pithy restriction, "nor shall private property be taken for public use, without just compensation."[126] The clause imposes both a substantive and a procedural hurdle on the federal government's eminent domain power: the government can take private property only if the taking is for a "public use" and when it does so, it must provide "just compensation" to the

125 *See* Verizon Comments, *supra* note 57, at 40–49.

126 U.S. CONST. amend. V.

affected landowner.[127] For the past eighty-five years, the clause has also been interpreted to place a limit on the government's power to regulate private property. A particular regulation on the use of private property may well be within Congress's power to adopt, but if the regulation goes "too far" it will effectively constitute a taking that requires just compensation, even if title to the property is technically left in the owner's hands.[128]

The Court has struggled to determine when a regulation can go "too far." For over three decades, *Penn Central Transportation Co. v. New York City*[129] has provided the three rough guideposts of regulatory takings jurisprudence.[130] Under this test, the Court balances (1) the economic impact of the regulation and (2) its interference with the owner's reasonable investment-backed expectations against (3) the nature of the government's action.[131] *Penn Central* is, by its terms, an ad hoc balancing test, which offers a rough list of issues that a court should consider in its takings calculus, but deliberately refuses to determine how much weight each factor should receive.[132] The resulting framework is flexible enough to be adapted to a wide range of potential regulations promulgated by the modern administrative state, but offers maddeningly little predictability or consistency across cases.[133]

To provide some modicum of certainty, subsequent case law has identified a handful of categories of regulations that constitute per se takings without the need to balance the three *Penn Central* factors. One of these is the permanent physical invasion doctrine. In *Loretto v. Teleprompter Manhattan CATV Corp.*,[134] the Court announced that "a permanent physical occupation authorized by government is a taking without regard to the public interests that it may serve."[135] *Loretto*

127 *See* Kelo v. City of New London, 545 U.S. 469, 477 (2005).

128 *See* Pa. Coal Co. v. Mahon, 260 U.S. 393, 415 (1922).

129 438 U.S. 104 (1978).

130 *See id.* at 124.

131 *See id.*

132 *See id.* ("[T]his Court, quite simply, has been unable to develop any 'set formula' for determining when 'justice and fairness' require that economic injuries caused by public action be compensated by the government, rather than remain disproportionately concentrated on a few persons.").

133 *See, e.g.*, Eric R. Claeys, *The Telecommunications Act of 1996, the Takings Clause, and Tensions in Property Theory*, 22 YALE J. ON REG. 205, 224 (2005) ("*Penn Central* claims that all takings cases are 'ad hoc,' and it warns lawyers and judges off from using conceptual severance and other formalistic tools to draw analogies across different classes of takings cases.").

134 458 U.S. 419 (1982).

135 *Id.* at 426.

involved a New York statute requiring all landlords to allow cable companies access to their properties to provide cable services to tenants, without charging more than a nominal fee for access.[136] In *Loretto's* case, this statute allowed the cable company to install a small metal box on the rooftop of the building and a narrow cable down the front of the building to the first floor.[137] The Court held that because the statute permitted the cable company to permanently occupy the rooftop and the side of the building without the consent of the property owner, it constituted a permanent physical occupation of the landlord's property and, therefore, the Fifth Amendment required that just compensation be paid.[138]

While most commentators treat per se takings as doctrine distinct from the *Penn Central* balancing test,[139] the *Loretto* Court saw its rule as a specific application of the more general rule. *Loretto* draws upon *Penn Central's* suggestion that "[a] 'taking' may more readily be found when the interference with property can be characterized as a physical invasion by government" rather than merely an exercise of the state's traditional police power.[140] In essence, *Loretto* held that where that physical invasion rises to the level of a permanent physical occupation of property (by the government or by a third party), the third prong of the balancing test weighs conclusively in the owner's favor without a need to consider the other two factors. "[A] permanent physical occupation is a government action of such a unique character that it is a taking without regard to other factors that a court might ordinarily examine."[141] "In such a case, 'the character of the government action' not only is an important factor in resolving whether the action works a taking but also is determinative."[142]

Loretto singled out government-sanctioned permanent physical invasions both under the Court's prior case law and as a matter of first principles. Writing for the Court, Justice Marshall explained that "[s]uch an appropriation is perhaps the most serious form of invasion of an owner's property interests" because it "does not simply take a single 'strand' from the 'bundle' of property rights [but rather] chops

136 *See id.* at 423–24.

137 *See id.* at 422.

138 *See id.* at 438.

139 *See* Claeys, *supra* note 133, at 225 ("Many commentators portray the categorical and balancing regulatory-takings cases as two sharply, almost hermetically-separate, fields of takings law.").

140 Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1978).

141 *Loretto*, 480 U.S. at 432.

142 *Id.* at 426.

through the bundle, taking a slice of every strand."[143] Moreover, Justice Marshall explained, "an owner suffers a special kind of injury" from a permanent physical occupation.[144] At a bare minimum, property law guarantees that an owner will remain "relatively undisturbed" in possession of his or her property.[145] A regulation that not only ousts the owner from possession, but permits a stranger to invade and act as the true owner "literally adds insult to injury."[146] Notably, Justice Marshall was not generally known as a proponent of either strong individual property rights or bright-line rules; his authorship of *Loretto* and his justification of the decision from first principles provide significant support for the Court's per se rule.

Loretto thus draws a constitutional distinction between compelled physical occupation cases and more run-of-the-mill exercises of the state's police power. *Loretto* takings go beyond mere "restrictions upon an owner's use of his property";[147] rather, as William Barr, Henry Weissmann, and John Frantz note, "[t]he operative fact in such cases is that the government is appropriating the use of the property for the benefit of the public."[148] *Loretto* thus fits comfortably alongside the long line of so-called "utility takings" cases, which hold that the appropriation of private property for public use requires just compensation.[149] When the government eliminates the owner's right to exclude, the property in question ceases to be wholly private. While the state is free to appropriate the use of property in this fashion, the Constitution requires that compensation be paid.[150]

B. Net Neutrality as a Per Se Taking Under Loretto

1. Net Neutrality Effects a Permanent Physical Occupation of Broadband Networks

Even the most straightforward telecommunications regulations can be a study in opaque, jargon-laden decisionmaking. But once stripped of its technical façade and reduced to more conventional property terms, the proposed net neutrality regulations strongly sug-

143 *Id.* at 435.
144 *Id.* at 436.
145 *See id.*
146 *Id.*
147 *Id.* at 441 (emphasis omitted).
148 William P. Barr et al., *The Gild That Is Killing the Lily: How Confusion over Regulatory Takings Doctrine Is Undermining the Core Protections of the Takings Clause*, 73 GEO. WASH. L. REV. 429, 485 (2005).
149 *See id.* at 485–86.
150 *See id.*

gest a permanent physical occupation of broadband providers' property under *Loretto*. Net neutrality would allow content providers such as Google or Hulu to transmit material across privately-owned broadband networks from the Internet to individual end-users, with or without the network owner's consent.[151] In essence, these third parties receive an unlimited, continuous right of access to broadband providers' private property for free. This access allows them to physically invade broadband networks with their electronic signals and permanently occupy portions of network capacity, all without having to pay the network provider for access. The effect is to appropriate the use of these private networks for the public's benefit, in the form of unfettered and nondiscriminatory access to the content and applications of the consumer's choosing. As Judge Stephen F. Williams noted in a different (but related) telecommunications takings case, "[t]he creation of an entitlement in some parties to use the facilities of another, *gratis*, would seem on its face to implicate *Loretto*."[152]

To draw a parallel to real property law, the rights granted to content and application providers are akin to a virtual easement to traverse broadband providers' networks. This type of access right fits comfortably within the Court's physical takings cases. *Loretto* quotes approvingly Professor Frank Michelman's analysis showing that, while regulatory takings cases are hard to classify with certainty, "[t]he one incontestable case for compensation (short of formal expropriation) seems to occur when the government deliberately brings it about that its agents, or the public at large, 'regularly' use, or 'permanently' occupy, space or a thing which theretofore was understood to be under private ownership."[153] In *Nollan v. California Coastal Commission*,[154] decided five years after *Loretto*, the Court struggled with the creation of an easement across a privately held beach, which would allow members of the public to cross from one public beach to another.[155] The Court made clear that, were such an easement to be directly imposed upon the property owner, it would unquestionably constitute a *Loretto* taking, even though it meant that different members of the public might occupy different parts of the property at any

151 *See supra* notes 85–92.

152 Turner Broad. Sys., Inc. v. FCC, 819 F. Supp. 32, 67 n.10 (D.D.C. 1993) (Williams, J., dissenting).

153 Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 427 n.5 (1982) (quoting Frank I. Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 HARV. L. REV. 1165, 1184 (1967)).

154 483 U.S. 825 (1987).

155 *Id.* at 828.

given time.[156] "'[P]ermanent physical occupation' has occurred, for purposes of that rule, where individuals are given a permanent and continuous right to pass to and fro, so that the real property may continuously be traversed, even though no particular individual is permitted to station himself permanently upon the premises."[157]

Thus, the net neutrality rules are not mere restrictions on an owner's ability to use its property, but instead implicate the full bundle of rights whose intersection so troubled Justice Marshall and the *Loretto* Court. In *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*,[158] the Court explained that most regulations do not effect a per se taking claim because they "do[ ] not give the government any right to use the property, nor [do they] dispossess the owner or affect her right to exclude others."[159] Net neutrality, by contrast, implicates each of these rights: like the cable access statute at issue in *Loretto*, the proposed regulation "chops through the bundle [of property rights], taking a slice of every strand."[160]

Most obviously, broadband providers lose the right to exclude, which "has traditionally been considered one of the most treasured strands in an owner's bundle of property rights."[161] Indeed, the very purpose of net neutrality is to deny broadband providers the right to exclude others from their networks. As the Court has explained, "required acquiescence is at the heart of the concept of occupation."[162] Unless they exit the Internet access business, broadband providers must allow any and all content and application providers to traverse their networks, and cannot charge a fee for doing so. In the Court's parlance, the rule converts content and application providers from mere "commercial lessee[s]" into "interloper[s] with a government license."[163]

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156 *See id.* at 831–32.

157 *Id.* at 832. The key question in *Nollan* was whether the government could impose an easement as a condition of approving the homeowners' request for a permit to condemn their one-story bungalow and build a larger home on the property. *Id.* at 834. The Court held that such a condition "further[s] the end advanced as the justification for" the condition. *Id.* at 837. Otherwise, the condition would effect a taking for which just compensation is required, regardless of the fact that the government remained free to deny the building permit absent the restriction. *See id.* at 841–42.

158 535 U.S. 302 (2002).

159 *Id.* at 324 n.19.

160 Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 435 (1982).

161 *Id.*

162 FCC v. Fla. Power Corp., 480 U.S. 245, 252 (1987).

163 *Id.* at 252–53.

By surrendering permanent access to third parties, broadband providers also lose the ability to control the use of their networks. At a base level, a broadband provider physically cannot use for its own purposes bandwidth that has already been occupied by a third party. Nor may it send its own signals through the network if doing so will disproportionately "degrade" third party content (for example, by adversely rerouting third-party data packets in a way that would cause delays or packet loss).[164] Indeed, broadband providers even lose the ability to control how third parties use the network, insofar as the rules prohibit providers from prioritizing certain third-party packets for faster delivery.[165] As Barr, Weissmann, and Frantz summarize, the government has appropriated the right to use broadband networks, so that all content and application providers can peddle their wares to consumers.[166] In *Loretto* terms, broadband providers "not only cannot exclude others, but can make no nonpossessory use of the property."[167]

Finally, net neutrality infringes on the right to dispose. Again, quoting *Loretto*:

> [E]ven though the owner may retain the bare legal right to dispose of the occupied space by transfer or sale, the permanent occupation of that space by a stranger will ordinarily empty the right of any value, since the purchaser will also be unable to make any use of the property.[168]

The prohibition against charging for preferred network access limits network providers' ability to "lease" scarce broadband for a profit, and also limits the value of the network to prospective buyers insofar as they are unable to use for their own purposes that portion of the network occupied by third-party content.[169]

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164 *See supra* text accompanying notes 95–96, 77–80.

165 *See supra* text accompanying notes 92–94.

166 *See* Barr et al., *supra* note 148, at 485.

167 Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 436 (1982). Depending upon the final rules governing the reasonable network management and managed services carvebacks, this infringement on the right of use may become even greater as the growth in demand for broadband outstrips supply. As noted above, on a congested network without quality-of-service guarantees, broadband providers will find it more difficult to deliver the enhanced services upon which they rely to pay back their tremendous investment in broadband deployment and upgrades. *See supra* text accompanying notes 61–64.

168 *Loretto*, 458 U.S. at 436.

169 It is no answer to respond that, as long as some bandwidth is available, the broadband provider can make use of other network capacity for its own purposes. The cable box at issue in *Loretto* occupied only a few cubic feet of an otherwise large building, and the landlord retained the full panoply of rights to the rest of the build-

2. Fifth Amendment Protection of Electronic Networks

Nor should it be relevant that the right of access at issue is a right to access electronic networks rather than to real property. As an initial matter, the *Loretto* rule has never been limited to physical occupation of real property. The D.C. Circuit has addressed this issue at length in *Nixon v. United States*,[170] a case involving a per se taking of President Nixon's private papers by the National Archives.[171] The court held that "[o]ne may be just as permanently and completely dispossessed of personal property as of real property"[172] and stated that the Court has repeatedly noted in dicta that per se physical taking of personal property is possible.[173]

Indeed, the *Loretto* Court itself considered the possibility that its rule could cover access to electronic networks.[174] As Justice Blackmun's dissent explains, Loretto's attorney asserted at oral argument[175] that it should not matter whether the cable line in question was owned by the cable company or the landlord, because the cable company's invasion of the line by electronic signals would still constitute a permanent physical occupation of private property.[176] Justice Blackmun agreed that the majority's opinion, when "[l]iterally read,"[177] must include compelled access to electronic networks: "[s]o long as Teleprompter continuously passed its electronic signal through the cable . . . a 'physical touching' by a stranger[ ] was satisfied and that § 828 therefore worked a taking."[178]

In the network access context, the Eleventh Circuit has found that a statute requiring utility companies to allow cable companies to attach wires to their network of utility poles constitutes a per se physi-

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ing. *Id.* at 438 n.16. The Court found this fact irrelevant: "[W]hether the installation is a taking does not depend on whether the volume of space it occupies is bigger than a breadbox." *Id.* More generally, as the D.C. Circuit has explained, "[t]he retention of some access rights by the former owner of property does not preclude the finding of a *per se* taking." Nixon v. United States, 978 F.2d 1269, 1285 (D.C. Cir. 1992).

170 978 F.2d 1269 (D.C. Cir. 1992).

171 *See id.* at 1284–85.

172 *Id.* at 1285.

173 *See id.* (citing United States v. Sperry Corp., 493 U.S. 52, 62 n.9 (1989)) (discussing per se takings of "real or personal property"); *see also Loretto*, 458 U.S. at 427 n.5 (discussing Michelman's conception that government may trigger a taking by "regularly us[ing] or permanently occupy[ing], space or a thing" (internal quotation marks omitted) (quoting Michelman, *supra* note 153, at 1184)).

174 *See Loretto*, 458 U.S. at 450 (Blackmun, J., dissenting).

175 *See id.* at 450 n.8.

176 *See id.*

177 *See id.* at 450.

178 *Id.*

cal taking of utility property.[179] Admittedly, the physical configurations of the two takings are different: pole attachment involves wires occupying space on a network of poles, while net neutrality involves data streams occupying space inside a network of wires. But the legal issues are identical. Both laws require network owners to dedicate a portion of available capacity to third-party use for the purpose of enhancing the telecommunications industry.

Moreover, as a factual matter, the transmission of content over broadband networks is not some metaphysical act.[180] It takes place in a real physical space—the fiber-optic cables and copper wires that comprise the broadband network, which are mounted in aboveground or underground easements across real property.[181] Transmission of Internet content primarily involves the movement of electrons, which are physical particles that occupy rivalrous limited space on those lines, en route from the Internet to the end-user consumer. While electrons are invisible to the naked eye and travel very quickly within a sheathed wire, the physical act of transmission is nothing more than a microscopic version of vehicles traveling along a highway—or pedestrians traversing an easement.[182]

Some courts have suggested that the physical takings doctrine should apply to electronic networks in the context of cable must-carry rules. The 1992 Cable Act gave certain broadcasters the right to com-

179 *See* Gulf Power Co. v. United States, 187 F.3d 1324, 1328–29 (11th Cir. 1999). The Supreme Court considered a similar takings claim under an earlier version of the statute, which had regulated pole attachment rates but did not make such attachment compulsory. *See* FCC v. Fla. Power Corp., 480 U.S. 245, 248 (1987). The *Florida Power* Court found no per se physical taking because, at the time, attachment to utility poles was not mandated by the Act. *See id.* at 251–52. But it did not even discuss the possibility that a per se taking claim would not lie because the property at issue was poles (which typically exist on an easement over real property owned by another) rather than real property. *Id.*

180 *Cf.* Turner Broad. Sys. v. FCC, 819 F. Supp. 32, 67 n.10 (D.D.C. 1993) (Williams, J., dissenting) ("The [National Association of Broadcasters] responds that *Loretto* is limited to 'physical' occupations of 'real property.' But the insertion of local stations' programs into a cable operator's line-up presumably is not a metaphysical act, and presumably takes place on real property." (citation omitted)), *vacated*, 512 U.S. 622 (1994).

181 *See id.*; *see also supra* Parts I.C–I.D (discussing the *Penn Central* test).

182 Moreover, it is worth noting that several courts have found takings where third-party interference with an owner's property rights falls short of actual placement of physical objects on the owner's property. *See, e.g.*, United States v. Causby, 328 U.S. 256, 261–62 (1946) (holding regular low-level flyovers by military aircraft as takings), *cited with approval in Loretto*, 458 U.S. at 430; Richards v. Washington Terminal Co., 233 U.S. 546, 557 (1914) (finding smoke and gases from nearby tunnel constructed under act of Congress to be a taking).

pel cable companies to carry their stations on cable networks.[183] The cable industry fought an unsuccessful battle to oppose the requirement, primarily on First Amendment grounds.[184] Along the way, however, the judiciary hinted that a Fifth Amendment claim might have gained some traction. Dissenting from the three-judge panel that denied the cable industry's challenge, Judge Stephen Williams explained that a law creating an "entitlement in some parties to use the facilities of another" seems to invite a challenge under *Loretto*.[185] In the process, he swept aside the broadcast industry's counterargument that *Loretto* should be "limited to 'physical' occupations of 'real property.'"[186] Later, in *Turner Broadcasting Systems, Inc. v. FCC* (*Turner I*),[187] four Justices recognized that a common carriage obligation placed on some of a cable system's channels would raise a Takings Clause question even though the question was not squarely presented before that Court.[188]

Laurence Tribe expanded upon this theme eight years later, when arguing against a proposal that cable companies be forced to carry digital broadcast signals.[189] The shift from analog to digital television meant that broadcasters could now send multiple video feeds instead of just one signal over the same amount of bandwidth. The Commission opened a proceeding in 2002 to consider whether cable companies should be required to carry these digital feeds on their systems, as the 1992 Cable Act required for analog feeds. Tribe argued that by forcing cable companies to allow broadcasters exclusive use of channels on the cable system, the agency would deprive those cable companies of the right to exclude and would effectively condemn a portion of the cable network under *Loretto*.[190]

Notably, Tribe argued that

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183 *See* 47 U.S.C. § 534(a) (2006).

184 *See Turner II*, 520 U.S. 180 (1997); *Turner I*, 512 U.S. 622 (1994).

185 *Turner*, 819 F. Supp. at 67 n.10 (Williams, J., dissenting).

186 *Id.*

187 512 U.S. 622 (1994).

188 *See id.* at 684 (O'Connor, J., concurring in part and dissenting in part) ("Congress might also conceivably obligate cable operators to act as common carriers for some of their channels, with those channels being open to all through some sort of lottery system or time-sharing arrangement. Setting aside any possible Takings Clause issues, it stands to reason that if Congress may demand that telephone companies operate as common carriers, it can ask the same of cable companies . . . .").

189 *See* Comments of Laurence H. Tribe, Why the Commission Should Not Adopt a Broad View of the "Primary Video" Carriage Obligation (FCC filed July 9, 2002) (arguing that the digital broadcast signals at issue differ from the analog signals at issue in the *Turner* decisions).

190 *Id.* at 13–14.

> [t]here would be no question that a compensable taking of private property for public use had occurred if the government decreed that cable operators had to turn over their entire channel capacity to broadcasters, even if the cable operators retained title to and have possession of the real and personal property necessary to provide programming to the system's subscribers over those channels.[191]

The constitutional principle is the same, he argued, "whether the transfer is accomplished wholesale or piece by piece. There is no constitutional exception that allows the government to avoid the Takings Clause by taking one strand of property at a time."[192]

But Tribe's parade-of-horribles hypothetical almost precisely states the Commission's plans with respect to net neutrality. The proposed rules could effectively turn over the entire capacity of the broadband network to content and application providers if demand for third-party content outstripped available bandwidth. Broadband providers would retain bare possession of their network facilities, but would be able to use those facilities to transmit content only as bandwidth permits. Moreover, their use of their own network would be subject to duties not to interfere with consumer choice and not to block or degrade other content and applications, which puts them at a disadvantage in the market for content and applications, since their competitors would labor under no such restrictions. In Tribe's words, there should be "no question" that a compensable taking of private property for public use has occurred.[193]

3. The *Cablevision* Decision

Yet some courts have rejected the extension of the physical takings doctrine to the context of occupation of electronic networks. In mid-2009, Cablevision raised a belated Takings Clause challenge to the analog must-carry statute adjudicated in the *Turner* cases in the context of a Commission order requiring it to carry a Long Island station on its networks.[194] This argument had previously garnered some support from FCC Commissioner Harold Furchtgott-Roth: "It is

191 *Id.* at 14–15 ("[W]hen the Government has condemned business property with the intention of carrying on the business, as where public-utility property has been taken over for continued operation by a governmental authority . . . . [T]he taker acquires going-concern value [and] it must pay for it." (quoting Kimball Laundry Co. v. United States, 338 U.S. 1, 12 (1949))).

192 *Id.* at 15. Although the Commission did not address the Takings Clause argument at length, it ultimately decided against imposing digital must-carry obligations.

193 *Id.* at 14.

194 *See* Cablevision Sys. Corp. v. FCC, 570 F.3d 83, 88 (2d Cir. 2009).

not unreasonable to argue that when a broadcast station's signal is mandatorily carried over a cable system, that carriage constitutes a permanent, physical occupation of the cable operator's private property—and thus a *per se* taking of that property."[195] Here, the agency's decision to avoid any substantive discussion of Cablevision's takings claim pays silent tribute to the strength of the claim. Yet the Second Circuit rejected Cablevision's argument, holding tersely that must-carry does not require any installation of broadcasting equipment on Cablevision's facilities and that the transmission of data over cable bandwidth does not involve a physical occupation of Cablevision property under *Loretto*.[196]

The *Cablevision* decision demonstrates the uncertainty surrounding the extension of "terrestrial" concepts to electronic networks. Lurking behind the text of the decision is an abstract notion that electronic networks are somehow "different" than other forms of property and, therefore, different rules should apply. This implicit conclusion is neither sustained nor sustainable. In reality, broadband wires are not black boxes beyond the reach of constitutional protection, and data transmission is not an indecipherable metaphysical process. While *Loretto* undoubtedly described its ruling as "narrow,"[197] later courts have extended its holding to reach easements across real property, attachment to utility poles, and possession of purely personal property.[198] Other doctrines have long found virtual access to networks a constitutional concern and have adapted "real-world" doctrines to fit network access issues.[199] Broadband providers have the same property rights in their networks as other owners have in more conventional property, and should receive the same level of protec-

195 WXTV License P'ship G.P., 15 FCC Rcd. 3308, 3320 (2000) (separate concurring statement of Commissioner Harold W. Furchtgott-Roth).

196 *See Cablevision*, 570 F.3d at 98; *see also* Qwest Corp. v. United States, 48 Fed. Cl. 672, 673 (2001) (denying *Loretto* claim stemming from statute mandating that local phone company grant competitor access to its telephone network facilities).

197 Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 441 (1982).

198 See *supra* text accompanying notes 154–157, 170–173, 179.

199 *See, e.g.*, *Turner II*, 520 U.S. 180, 189 (1997) (adopting modified *O'Brien* test, *see* United States v. O'Brien, 391 U.S. 367, 377 (1968), under First Amendment to determine constitutionality of compelled speech over cable networks); Katz v. United States, 389 U.S. 347, 351–52 (1967) (holding that Fourth Amendment does not turn on whether government physically penetrated area occupied by petitioner and highlighting a petitioner's expectation of privacy and the norm that the telephone is a medium of private communication); Am. Online, Inc. v. IMS, 24 F. Supp. 2d 548, 550 (E.D. Va. 1998) (same); CompuServe, Inc. v. Cyber Promotions, Inc., 962 F. Supp. 1015, 1027 (S.D. Ohio 1997) (applying trespass law to "hacking" claim involving unauthorized use of electronic network).

tion from permanent physical occupation under the Fifth Amendment.

C. *Net Neutrality as a Regulatory Taking Under* Penn Central

A regulatory takings claim that does not satisfy the *Loretto* test or another of the Court's per se takings doctrines is typically subjected to the *Penn Central* ad hoc balancing test mentioned above.[200] If broadband providers were to lose their claim that net neutrality effects a *Loretto* taking, they may nonetheless assert a claim under *Penn Central.* As discussed above, this ad hoc test balances three factors: the owner's reasonable investment-backed expectations, the economic impact of the regulation, and the nature of the government's action.[201] Regulations that merely "adjust[ ] the benefits and burdens of economic life to promote the common good"[202] are likely to be upheld. Moreover, because "[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law,"[203] the doctrine typically gives wide latitude to regulators seeking only to regulate one's use of property. But "[a] 'taking' may more readily be found when the interference with property can be characterized as a physical invasion by government," even if short of the *Loretto* per se standard, particularly where the economic impact and interference with investment-backed expectations are great.[204]

1. Interference with Investment-Backed Expectations

Broadband providers are likely to assert that net neutrality unduly interferes with their reasonable investment-backed expectations with regard to future broadband service. As noted in subpart I.C, the Commission ended the "Open Access" debate by labeling broadband service as a Title I information service free of nondiscrimination and other common carrier obligations that accompany more heavily regulated telecommunications services.[205] The end of this regulatory uncertainty led to an explosion in investment in fiber-optic cable and other network improvements, investment that providers hoped to recover through not only the sale of faster Internet service, but also

200 *See* Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1978); *supra* text accompanying notes 129–133.

201 *See supra* text accompanying notes 129–133.

202 *Penn Cent.*, 438 U.S. at 124.

203 *Id.* (quoting Pa. Coal Co. v. Mahon, 260 U.S. 393, 413 (1922)).

204 *Id.*

205 *See supra* text accompanying notes 42–46.

enhanced services such as video service that faster broadband speeds made possible.[206] Net neutrality unreasonably interferes with these expectations of future revenue streams—expectations backed by literally billions of dollars of infrastructure investment. Broadband providers have a vested interest in their ability to block or degrade content and applications to shield their present, and future, enhanced services from broadband congestion. Interference with these expectations, they would argue, should weigh heavily in their favor in the *Penn Central* calculus.

While this argument is strong,[207] broadband providers face a significant hurdle. As many have noted, "[d]oing business in a highly regulated field raises the bar" for showing that any investment-backed expectations were reasonable.[208] As the Court has explained, "those who do business in [a] regulated field cannot object if the legislative scheme is buttressed by subsequent amendments to achieve the legislative end."[209]

Although broadband service is only lightly regulated under Title I of the Communications Act, broadband providers are primarily either telephone companies subject to Title II or cable providers subject to Title VI (or both), and are therefore readily familiar with the realities of doing business as a regulated industry.[210] Moreover, broadband providers have been on notice for years of the possibility of being subjected to future net neutrality regulation. Not only have a flurry of proposals reached committees in Congress, but the Commission explicitly issued its four freedoms policy statement in 2005.[211] While the policy statement was non-binding, its unanimous approval and explicit language regarding future rulemaking proceedings suggested strongly that some form of net neutrality lay in the industry's future.[212] The Comcast Order and the Obama campaign's net neu-

206 *See supra* text accompanying notes 47–50.

207 The billions invested in infrastructure and the guarantees proffered by *Brand X* and Commission precedent set broadband providers apart from most claims of investment-backed expectations. *See supra* text accompanying notes 47–50.

208 Nissa Laughner & Justin Brown, *Cable Operators' Fifth Amendment Claims Applied to Digital Must-Carry*, 58 FED. COMM. L.J. 281, 305 (2006).

209 Concrete Pipe & Prods. of Cal., Inc. v. Constr. Laborers Pension Trust for S. Cal., 508 U.S. 602, 645 (1993) (quoting FHA v. Darlington, Inc., 358 U.S. 84, 91 (1958)); *see also* Franklin Mem'l Hosp. v. Harvey, 575 F.3d 121, 128 (1st Cir. 2009) ("[Franklin Memorial Hospital's] investment-backed expectations are tempered by the fact that it operates in the highly regulated hospital industry.").

210 *See supra* Part I.A.

211 *See* Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, 20 FCC Rcd. 14,986, 14,988 (2005).

212 *See id.*

trality platform dispelled any lingering doubts as to the ultimate destination of Internet policy. Therefore, while fiber-optic upgrades were implemented at a time of relatively light regulation, any expectation by shareholders that Internet access would remain unregulated for the foreseeable future would have been unreasonable, or at least a judge could reasonably so find.

2. Economic Impact

While the investment-backed expectations inquiry examines the loss of future earning potential, the economic impact prong asks a court to examine the effect of the regulation on the present value of the property. Economic impact is rarely dispositive,[213] but a greater showing of economic impact can lead to a lesser showing on the other two factors.

In this case, it is difficult to determine, ex ante, what the economic impact of net neutrality will be on broadband providers' current use. Broadband providers are not currently engaged in blocking, traffic throttling, and other behavior that the net neutrality rules would forbid. Nor, for the most part, are they offering tiered service to content and application providers willing to pay for quality of service guarantees.[214] The lack of such behavior suggests that the ability to engage in such practices is not essential to maintenance of present operations.

One can question whether the Supreme Court has charted the correct course in choosing to ignore the regulation's effect on potential future markets. In copyright law, for example, owners can claim infringement based not only on lost sales in existing markets for the work at issue, but also based on interference with the rights holder's ability to exploit future markets that it has not yet entered.[215] But under existing Court precedent, the economic impact is small. The net neutrality rules impose primarily opportunity costs, in the sense of the lost value of the option to engage in such behavior if necessary. But the value of such an option is inherently speculative, and the loss of this option has little impact on the industry's current economics. Therefore, it is likely that this factor will not weigh strongly in the broadband providers' favor.

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213 The Court famously sustained zoning ordinances against a takings challenge despite the fact that the regulation caused a seventy-five percent reduction in property value. *See* Vill. of Euclid v. Ambler Realty, 272 U.S. 365, 384 (1926).

214 *See, e.g.*, Verizon Comments, *supra* note 56, at 32–33.

215 *See* Campell v. Acuff-Rose Music, Inc., 510 U.S. 569, 590–91 (1994).

3. Character of the Government Action

This prong examines the motives behind the government's action and the extent to which it interferes with the owner's preexisting property rights.[216] In this case, these factors tug in opposite directions. The government is not merely "acting in an enterprise capacity" for its own benefit.[217] On the one hand, the Commission has promulgated these rules to benefit public welfare through assurances of an open Internet.[218] Rightly or not, the Commission recognizes broadband providers as bottlenecks in the broadband economy and has determined that it is in the public interest to guard innovation and creativity from potential abuse of that bottleneck position.[219]

On the other hand, the government's chosen method of regulating for the public interest involves highly invasive inroads into the private property rights of network providers. As noted above, the net neutrality rules substantially interfere with broadband providers' traditional rights to exclude from use and dispose of property. The providers' takings claim is similar to the claim presented in *Kaiser Aetna v. United States*,[220] where the government imposed a navigational servitude on a private marina for the public interest.[221] The property owner purchased a private pond in Hawaii and, with the approval of the Army Corps of Engineers, dredged the pond and converted it into a marina.[222] As a final step, the owner cut a channel to connect his marina to a nearby bay. Once it did so, however, the government claimed that the marina constituted "navigable waters" and therefore imposed a navigational servitude on the marina to permit access to the public.[223] The Court held that the government had authority to impose the servitude—the equivalent of an easement—on the property, but that doing so deprived the owner of the right to exclude.[224] For that taking, the Court awarded just compensation.[225]

One can debate whether *Kaiser Aetna* is better classified as a *Loretto* case or a *Penn Central* case. *Loretto* affirmatively disavows the placement of *Kaiser Aetna* within its per se rule; because the servitude is in the nature of an easement, the Court explained, people come

216 *See* Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 136 (1978).
217 *Id.* at 135.
218 *See* Net Neutrality NPRM, *supra* note 2, at 62,639.
219 *See id.* at 62,641.
220 444 U.S. 164 (1979).
221 *Id.* at 175.
222 *Id.* at 165, 167.
223 *Id.* at 169.
224 *See id.* at 178.
225 *See id.* at 178, 180.

and go as they please.[226] Thus, while there is a physical invasion of the marina by the public generally, there is no permanent physical occupation. *Nollan*, however, seems to eschew this logic, asserting unequivocally that the imposition of an easement on real property constitutes a per se taking, regardless of the fact that no individual user would maintain a permanent position on the easement.[227]

If, after *Nollan*, *Kaiser Aetna* is better classified as a *Loretto* case, then the parallels between this case and *Kaiser Aetna* strengthen the broadband providers' per se physical appropriation claim. If, however, *Kaiser Aetna* properly belongs with run-of-the-mill regulatory takings cases under *Penn Central*, then it helps weigh the "nature of the government action" factor in the owners' favor by showing how significantly the regulation would invade private property interests.

Given the ad hoc nature of the *Penn Central* test, it is always difficult to predict with certainty how a court will determine any given regulatory takings case. But given the lack of significant present economic impact and the seemingly strong public interest served by net neutrality regulation, broadband providers likely face an uphill battle to convince a judge that the rules constitute a typical regulatory taking. The physical appropriation claim is the better of the two arguments broadband providers can make to try to preserve their property rights from Commission appropriation.

D. Distinguishing Common Carriage and Public Accommodations

Proponents may argue that the proposed net neutrality rules are simply a particular species of common carriage or public accommodations laws, which generally withstand Fifth Amendment scrutiny. The Court has explained:

> Where "permanent physical occupation" of land is concerned, we have refused to allow the government to decree it anew (without compensation), no matter how weighty the asserted "public interests" involved—though we assuredly *would* permit the government to assert a permanent easement that was a pre-existing limitation upon the landowner's title.[228]

In other words, a regulatory takings claim would not lie if the restriction that the government seeks to impose stems from background limits that the common law traditionally placed upon prop-

226 Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 433 (1982).

227 Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 831 (1987).

228 Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1028–29 (1992) (internal citation omitted) (quoting *Loretto*, 458 U.S. at 426).

erty.[229] No taking can occur in such a case because the law has not "taken" anything from the landowner. Rather, if the common law never recognized the right at issue, then it was never the owner's to begin with.[230]

But upon closer examination, this defense collapses. To avail itself of this safe harbor, the Commission must show that the "law or decree . . . do[es] no more than duplicate the result that could have been achieved in the courts"[231] under a common law property claim, or otherwise make explicit a limitation implied in the owner's title by "existing rules or understandings."[232] In this case, the net neutrality restrictions go far beyond whatever limitations common carriage or public accommodations norms placed upon network owners at common law. Because net neutrality does more than simply codify an existing rule or understanding of the common law, its enactment by reclassification would effect a taking.

1. Common Carriage

Common carriage is a slippery term. The Communications Act defines a "common carrier" somewhat circularly as "any person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio."[233] But, perhaps more helpfully, it also notes that "[a] telecommunications carrier shall be treated as a common carrier under this chapter only to the extent that it is engaged in providing telecommunications services."[234] As noted above, the Commission has classified broadband service as an "information service" rather than a "telecommunications service,"[235] meaning that it is not currently subject to the restrictions that the Communications Act places on common carriers.[236]

Ostensibly, the purpose of reclassifying broadband Internet service under Title II would be to label such providers as telecommunica-

229 *See id.*

230 *See id.*

231 *Id.* at 1029.

232 *Id.* at 1030.

233 47 U.S.C. § 153(10) (2006).

234 *Id.* § 153(44).

235 *See* Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks, 22 FCC Rcd. 5901 (2007); Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, 20 FCC Rcd. 14,853 (2005); Cable Modem Order, *supra* note 35, at 4798.

236 *Cf.* FCC v. Midwest Video Corp., 440 U.S. 689, 705 (1979) (vacating Commission regulation that would subject non-common-carrier cable companies to common carrier-like restrictions under Title I).

tions "common carriers" under the statute. And the Commission may well have authority to enact this reclassification, but it would effectively burden broadband providers with statutory common carrier obligations that, according to the Act, are not currently binding upon them. As a result, this reclassification would do more than simply make explicit a limitation implied by "existing rules or understandings";[237] it would take away broadband providers' existing rights, thereby requiring just compensation.

The Commission fares no better with the common law. In *National Ass'n of Regulatory Utility Commissioners v. FCC*,[238] the D.C. Circuit struggled with the "long and complicated history" of the "common law definition of common carrier," as it would apply to the telecommunications industry.[239] The *NARUC* court explained:

> Originally, the doctrine was used to impose a greater standard of care upon carriers who held themselves out as offering to serve the public in general. The rationale was that by holding themselves out to the public at large, otherwise private carriers took on a quasi-public character. This character, coupled with the lack of control exercised by shippers or travellers over the safety of their carriage, was seen to justify imposing upon the carrier the status of an insurer.[240]

NARUC in turn referred back to the seminal 1876 decision *Munn v. Illinois*,[241] in which the Supreme Court sustained common carrier regulation of a grain elevator against a challenge that the law effected a deprivation of property without due process.[242] *Munn* found that common carrier restrictions were appropriate when the business in question is "affected with a public interest,"[243] a phrase coined two centuries before by Sir Matthew Hale, then-Lord Chief Justice of the King's Bench.[244] *Munn* discussed at length the types of industries that Hale classified in this category, such as ferries,[245] wharves,[246] and

237 *Lucas*, 505 U.S. at 1030.

238 *NARUC*, 525 F.2d 630 (D.C. Cir. 1976).

239 *See id.* at 640.

240 *Id.*

241 94 U.S. 113 (1876).

242 *See id.* at 119–20. *Munn* and other cases in this line predated the modern incorporation doctrine. Though the constitutional claim is different, these cases can be thought of as nineteenth-century analogues to modern takings doctrine. *See* Daniel A. Lyons, *Public Use, Public Choice, and the Urban Growth Machine: Competing Political Economies of Takings Law*, 42 U. MICH. J.L. REFORM 265, 273–74 (2009).

243 *See Munn*, 94 U.S. at 126, 127, 129, 130.

244 *See* Breck P. McAllister, *Lord Hale and Business Affected with a Public Interest*, 43 HARV. L. REV. 759, 759 (1930), *cited in NARUC*, 525 F.2d at 640 n.54.

245 *See Munn*, 94 U.S. at 126.

warehouses.[247] In each case, Lord Hale described the industry in question as either operating pursuant to a franchise or charter from the king, or otherwise possessing monopoly power over the public. In such cases, *Munn* explained, private property is dedicated to a public use to such a degree as to justify public regulation.[248]

The *NARUC* court pulled these and other strands of common law common carriage into a two-part test.[249] As interpreted by subsequent courts and Commission decisions, this test finds a business to be a common carrier if (1) "it will 'make capacity available to the public

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> Thus, as to ferries, Lord Hale says . . . the king has "a right of franchise or privilege, that no man may set up a common ferry for all passengers, without a prescription time out of mind, or a charter from the king. He may make a ferry for his own use or the use of his family, but not for the common use of all the king's subjects passing that way; because it doth in consequence tend to a common charge, and is become a thing of public interest and use . . . ."

Id. (quoting LORD MATTHEW HALE, DE JURE MARIS, *reprinted in* COLLECTION OF TRACTS RELATIVE TO THE LAW OF ENGLAND 72 (Francis Hargrave ed., 1982)).

246 *See id.* at 150.

> A man, for his own private advantage, may, in a port or town, set up a wharf or crane, and may take what rates he and his customers can agree . . . for he doth no more than is lawful for any man to do, viz., makes the most of his own. . . . If the king or subject have a public wharf, unto which all persons that come to that port must come and unlade or lade their goods as for the purpose, because they are the wharves only licensed by the king, . . . or because there is no other wharf in that port, as it may fall out where a port is newly erected, in that case there cannot be taken arbitrary and excessive duties . . . .

Id. (second, third, fourth alteration in original) (quoting LORD MATTHEW HALE, DE PORTIBUS MARIS, *reprinted in* COLLECTION OF TRACTS RELATIVE TO THE LAW OF ENGLAND, *supra* note 244, at 72).

247 *See id.* at 127–28.

> There is no doubt that the general principle is favored, both in law and justice, that every man may fix what price he pleases upon his own property, or the use of it; but if for a particular purpose the public have a right to resort to his premises and make use of them, and he have a monopoly in them for that purpose, if he will take the benefit of that monopoly, he must, as an equivalent, perform the duty attached to it on reasonable terms. The question then is, whether, circumstanced as this company is, by the combination of the warehousing act with the act by which they were originally constituted, and with the actually existing state of things in the port of London, whereby they alone have the warehousing of these wines, they be not, according to the doctrine of Lord Hale, obliged to limit themselves to a reasonable compensation for such warehousing.

Id. (quoting Aldnutt v. Inglis, 12 East 527, 537).

248 *See id.* at 130.

249 *See NARUC*, 525 F.2d at 642.

indifferently'" or if (2) "'the public interest requires common carrier operation of the proposed facility.'"[250]

The first prong focuses upon whether the business "'undertakes to carry for all people indifferently.'"[251] "[A] carrier will not be a common carrier where its practice is to make individualized decisions, in particular cases, whether and on what terms to deal."[252] The second focuses primarily upon market dominance: "In ascertaining the public interest, the focus of our inquiry here is whether the license applicant has sufficient market power to warrant regulatory treatment as a common carrier."[253] This disjunctive test thus captures the broad range of industries traditionally considered common carriers. Utilities such as electricity and traditional telephony are common carriers by virtue of their market power, while industries such as trucking and lodging become common carriers, despite a lack of market power, due to the voluntary decision to hold themselves out to serve the public indiscriminately.

Broadband providers satisfy neither prong of the disjunctive *NARUC* test. First, as regards content and application providers, broadband providers explicitly have not held themselves out to carry for all entities indiscriminately.[254] Rather, they reserved the right to make, and in many cases actually have made, "individualized decisions, in particular cases, whether and on what terms to deal."[255] Indeed, Verizon, AT&T, and the rest of the industry have opposed the "Open Internet" Initiative precisely because it would deny them the ability to negotiate individualized access agreements that they wish to reach with content and application providers. Second, the Commission has repeatedly found that the marketplace for broadband services is competitive, thus foreclosing a finding of market power.[256]

250 V.I. Tel. Corp. v. FCC, 198 F.3d 921, 924 (D.C. Cir. 1999) (quoting Cable & Wireless, PLC, 12 FCC Rcd. 8,516, 8,522 (1997) (cable landing license)).

251 *NARUC*, 525 F.2d at 641 (quoting, *inter alia*, Semon v. Royal Idemn. Co., 279 F.2d 737, 739 (5th Cir. 1960)).

252 *Id.*

253 AT&T Submarine Sys., Inc., 13 FCC Rcd. 21,585, 21,589 (1998) (memorandum opinion and order).

254 *See NARUC*, 525 F.2d at 641.

255 *Id.*

256 *See, e.g.*, United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service, 21 FCC Rcd. 13,281, 13,281 (2006) (memorandum opinion and order); Wireline Broadband Order, 20 FCC Rcd. 14,853, 14,877–78 (2005) (report and order and notice of proposed rulemaking); Petition for Forebearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c), 19 FCC Rcd. 21,496, 21,504 (2004) (memorandum opinion and order); Triennial Review Order, 18 FCC

The Commission has found that over ninety-nine percent of zip codes have multiple choices for high-speed Internet access,[257] and as wireless broadband matures, competition in the industry will only increase. Because broadband service does not satisfy either prong of the *NARUC* test, it does not fit the traditional common law definition of common carriage.

Susan Crawford has recently suggested that this focus on market power represents a flawed interpretation of past precedent.[258] She argues that market power is only a recent yardstick for common carriage and is at odds with the history of common carriage legislation.[259] Crawford would substitute in its place a more amorphous test that focuses upon whether the industry in question has a "special relationship" with the state, in the sense that their services are "fundamental to a successful polity."[260] But this proposed definition provides no more clarity than Lord Hale's original formulation that a business be "affected by the public interest."[261] As Crawford candidly notes, it is difficult to determine what the "principled basis" for this special relationship is in a way that would distinguish common carriers from providers of other basic societal staples such as "flour and salt."[262] Moreover, this formulation downplays the obvious fact that concerns about market power have historically animated many decisions in this area, from *Munn* forward.[263] The Communications Act is itself modeled upon the Interstate Commerce Act, which imposed common carrier duties on railroads explicitly because of concerns about market

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Rcd. 16,978, 17,141–42 (2003) (report and order and order on remand and further notice of proposed rulemaking).

257 *See* Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, 23 FCC Rcd. 9,615, 9,677, app. B at 9677 tbl.15 (2008) (fifth report).

258 *See* Crawford, *supra* note 48, at 876 ("Market power is not the reason that this non-discrimination obligation has been imposed on basic communications networks . . . .").

259 *See id.* at 880–82; *see also id.* at 883–84 ("There appears to be only a weak correlation between market power or natural monopoly and the historical imposition of non-discrimination obligations.").

260 *Id.* at 884.

261 *See* Munn v. Illinois, 94 U.S. 113, 126 (1876).

262 Crawford, *supra* note 48, at 884.

263 *See* Henry H. Perritt, Jr., *Access to the National Information Infrastructure*, 30 WAKE FOREST L. REV. 51, 61 (1995) (noting that common law common carriage sought to "prohibit discriminatory denial of service by entities holding themselves out as serving everyone and possessing market power").

power.[264] And while some traditional common carriers do not historically possess market power—such as trucking or aeronautics—the *NARUC* test suggests that these industries became common carriers by virtue of a strategic decision to serve the public indiscriminately.[265] Absent this voluntary act, the common law imposed common carrier–like obligations to control market power, and that rationale is simply not present in the modern broadband industry.

Even if Crawford was correct, however, and broadband does resemble the type of industry traditionally classified as a common carrier, the proposed net neutrality regulations would fail because they impose a burden on the industry far greater than traditional common carriage would. The essence of common carriage is that the carrier must provide service to all comers at just and reasonable rates.[266] It does not prevent the carrier from offering different services at different rates, as long as all similarly situated customers are offered similar choices at similar prices.[267] For example, the U.S. Postal Service, which is perhaps the quintessential common carrier, is permitted to offer bulk-rate, first-class, priority-mail, and express-mail service to the public, and to charge a higher price for faster delivery. By contrast, the Commission has indicated that its "Open Internet" rules would ban providers from offering faster delivery speeds for a price, even if the "express mail" option is made available on a common carriage basis to all content and application providers willing to pay the premium for such service.[268]

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264 *See* James F. Rill, *The Evolution of Modern Antitrust Among Federal Agencies*, 11 GEO. MASON L. REV. 135, 137 (2002).

265 *See NARUC*, 525 F.2d 630, 642 (D.C. Cir. 1976).

266 *See* 47 U.S.C. §§ 201–202 (2006) (describing the duty of a common carrier to provide service at a reasonable rate); *Munn*, 94 U.S. at 126–28.

267 *See supra* note 266.

268 *See* Comments of AT&T Inc. at 131–32, Preserving the Open Internet Broadband Industry Practices, GN Docket No. 09–191 (FCC filed Jan. 14, 2010), *available at* http://www.att.com/comon/about_us/public_policy/AT&TNet_Neutrality_comments1_14_09.pdf. As AT&T notes, the fact that common law common carriage originates in the law of bailments only magnifies broadband providers' claims:

> [U]nder the common law, a bailee assumes special duties to care for packages that need special care. Here, broadband providers *seek the right* to act as bailees in this respect—to sell special packaging ([Quality of Service] enhancements) to merchants (application or content providers) that wish to contract for extra care in the delivery of their services to recipients. And the Commission's proposed line-of-business restriction would paradoxically bar them from doing so.

Id. at 132.

None of this is to suggest that Congress is without the power to impose common carriage-like restrictions on broadband providers as a matter of policy. As noted above, Congress retains the power to place whatever restrictions on broadband providers that it deems in the public interest. But the Commission's proposed initiative cannot be insulated from the Fifth Amendment with reference to traditional common carriage principles. Broadband providers simply do not fit the profile of a traditional common carrier, and the net neutrality rules proposed in the "Open Internet" Initiative go far beyond traditional common carriage restrictions on business. As a result, the rules do more than simply make explicit an existing restriction implied in law on broadband providers' rights. Rather, they go further than traditional common law common carriage ever would, and are not shielded from a takings claim by the common law of common carriage.

2. Public Accommodations Rules

The proposed rules also impose a greater burden on broadband providers than common law public accommodations statutes would suggest. Though often opaque in its reasoning, the Court has sustained certain public accommodations statutes against takings claims. The two leading cases on this point are *Heart of Atlanta Motel, Inc. v. United States*,[269] which perfunctorily dismissed a Fifth Amendment challenge to the Civil Rights Act,[270] and *PruneYard Shopping Center v. Robins*,[271] which found that the California Constitution's grant of a free speech right of access to shopping malls did not offend the Takings Clause.[272] The upshot of these decisions appears to be that property owners who invite the public generally to their property lose at least some of their Fifth Amendment protections against further regulation of the right to access.[273] In a sense, this line of cases echoes the common carriage restrictions placed upon entities that hold themselves out to serve the public indiscriminately.

But while these cases suggest that some form of public access right is permissible, they are distinguishable from the Commission's proposed net neutrality regulations in at least two ways. First, net neutrality reaches beyond the access rights of end-user consumers. The Civil Rights Act and the state constitutional right in *PruneYard* hold

269 379 U.S. 241 (1964).
270 *Id.* at 258.
271 447 U.S. 74 (1980).
272 *Id.* at 81–82.
273 *See* Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 831 (1987).

simply that if, as an owner, you invite consumers generally to use your property, you must do so in a nondiscriminatory manner.[274] But the "Open Internet" Initiative is only indirectly concerned with end-user consumers. As Philip Weiser has noted, all sides of the debate agree that broadband providers can discriminate among end-user consumers, at least in the sense of charging consumers different prices for different download and upload speeds.[275] Rather, net neutrality is concerned about the relationship between broadband providers and content and application providers—the "manufacturers" in the Internet economy who produce the goods that consumers seek.

To use an offline comparison, net neutrality is akin to requiring Costco to carry any and all merchandise that any vendor wishes to sell in the store. Furthermore, the store would not be allowed to charge for premium shelf space or other product placement, as is common in the retail sector. Costco could earn revenue only from its annual membership fees charged to shoppers, and from the sale of private-label merchandise in the store, but it is under strict rules that preclude it from dedicating more or better shelf space to its own private-label merchandise than that of its competitors. From this revenue it must manage the store and pay all overhead expenses, in a manner that does not threaten the ability of other vendors to sell their goods at the store.

Put in this perspective, one quickly sees how net neutrality differs in magnitude and in kind from traditional public accommodations laws. *Heart of Atlanta* and *PruneYard* did not involve vendor access to retail establishments; they simply held that once an establishment opened its property to consumers, it could not discriminate against particular classes of consumers on the basis of factors unrelated to the operation of the establishment, such as a customer's race or political views.[276] In other cases, the fact that a claimant's facilities are available for public use has not precluded the court from finding a taking where the occupation is accomplished by an entity that is not an end-user consumer, or whose use does not lie within the scope of the public invitation.[277]

Moreover, the public accommodations cases are distinguishable because of the retained authority of the property owner to control the

274 *See PruneYard*, 447 U.S. at 82–83.

275 *See* ATKINSON & WEISER, *supra* note 60, at 4 n.9.

276 *See supra* notes 269–274 and accompanying text.

277 *See, e.g.*, Gulf Power Co. v. United States, 187 F.3d 1324, 1328 (11th Cir. 1999) (holding that the fact that consumers generally use power company's network to receive electricity does not preclude takings claim based on statute granting cable companies access to power company utility poles to install cable lines).

conditions under which the public accesses the property. In *PruneYard*, the Court refused to find a taking, in part, because the mall owner could still "adopt[ ] time, place, and manner regulations that will minimize any interference with its commercial functions."[278] Because of this retained control over the terms of access, the Court explained that "the fact that they may have 'physically invaded' appellants' property cannot be viewed as determinative."[279] The *Loretto* Court distinguished *PruneYard* on precisely this basis, noting that *PruneYard* was not a physical taking because of the restrictions that the mall owner could place on protesters to "minimize interference with the owner's commercial functions."[280]

But of course, the net neutrality restrictions do not permit broadband owners a comparable level of retained control over the terms of third-party access. Indeed, the very purpose of net neutrality is to deny network owners the ability to place "time, place, and manner restrictions [that would] minimize [any] interference with [its] commercial functions."[281] The purpose, rather, is precisely to interfere with the owners' commercial functions, at least insofar as those commercial functions include charging for access to end-users or delivering bandwidth-intensive applications to end-users over congested networks.[282] As a result, the breadth of the proposed net neutrality rules likely takes it outside the scope of the public accommodations laws held to be permissible under *Heart of Atlanta* and *PruneYard*.

III. RAMIFICATIONS FOR THE "OPEN INTERNET" INITIATIVE AND THE "THIRD WAY" PROPOSAL

Broadband providers thus have a strong argument that the Commission's proposed net neutrality rules effect a physical taking under *Loretto*. The physical invasion of an electronic network by a third-party signal is legally and physically no different from the invasion of a rooftop by equipment,[283] utility poles by foreign equipment,[284] or a beachfront lot by tourists.[285] Each involves strangers receiving an unfettered right of access to a defined area of private property over the objection of the property owner, in a way that infringes upon the owner's ability to exclude from, use, or dispose of the space so occu-

278 *PruneYard*, 447 U.S. at 83.
279 *Id.* at 84.
280 Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 434 (1982).
281 *Id.*; *see supra* text accompanying notes 86–94.
282 *See supra* notes 161–163 and accompanying text.
283 *See supra* text accompanying notes 134–50.
284 *See supra* text accompanying note 179.
285 *See supra* text accompanying notes 154–57.

pied. Of course, as *Cablevision* notes, courts may have some conceptual difficulty extending the *Loretto* doctrine to electronic networks, despite the fact that the same property rights are at stake in both scenarios.[286] In that circumstance, broadband networks may fall back on a more general regulatory takings claim under *Penn Central*, which is arguable, but not as strong under existing case law.

But broadband providers need not have an airtight Takings Clause claim before they can impact the present net neutrality debate. The fact that the proposed rules present a "serious constitutional question" suggests that the Commission should reconsider its decision to promulgate net neutrality restrictions without a clear mandate from Congress. The deference normally afforded to administrative action under *Chevron USA, Inc. v. Natural Resources Defense Council, Inc.*[287] is inapplicable where the administrative action raises serious constitutional issues.[288] The Supreme Court has explained:

> Where an administrative interpretation of a statute invokes the outer limits of Congress's power, we expect a clear indication that Congress intended that result. This requirement stems from our prudential desire not to needlessly reach constitutional issues and our assumption that Congress does not casually authorize administrative agencies to interpret a statute to push the limit of congressional authority.[289]

The canon of constitutional avoidance carries particular importance in the context of the Takings Clause, where a successful claim would require the payment of just compensation and thus would raise separation-of-powers concerns. In *Bell Atlantic Telephone Companies v. FCC*,[290] the D.C. Circuit explained that "[w]here administrative interpretation of a statute creates such a class, use of a narrowing construction prevents executive encroachment on Congress's exclusive powers to raise revenue and to appropriate funds."[291] The court explained that without this limiting principle, "*Chevron* deference to agency action that creates a broad class of takings claims, compensable in the

286 Cablevision Sys. Corp. v. FCC, 570 F.3d 83, 98 (2d Cir. 2009).

287 467 U.S. 837, 863 (1984).

288 *See* Bell Atlantic Tel. Cos. v. FCC, 24 F.3d 1441, 1445 (D.C. Cir. 1994).

289 Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 172–73 (2001) (citation omitted); *see also* INS v. St. Cyr, 533 U.S. 289, 299 (2001) ("[W]hen a particular interpretation of a statute invokes the outer limits of Congress' power, we expect a clear indication that Congress intended that result."); Jones v. United States, 529 U.S. 848, 851 (2000) ("[C]onstitutionally doubtful constructions should be avoided where possible.").

290 24 F.3d 1441.

291 *Id.* at 1445.

Court of Claims, would allow agencies to use statutory silence or ambiguity to expose the Treasury to liability both massive and unforeseen."[292] *Bell Atlantic* involved a Fifth Amendment challenge to an FCC access rule, promulgated without clear authorization from Congress, that required local telephone companies to grant competitors access to their networks. The D.C. Circuit did not resolve the Fifth Amendment claim, because it did not need to do so; rather, it found that because the petitioners' claim "fairly implicates" the Takings Clause under *Loretto*, and the Commission lacked express authority from Congress to mandate access, the rule was held to be invalid.[293]

Here, it is important to note that Congress has not clearly authorized the Commission to impose net neutrality rules on broadband providers. If anything, the fact that Congress has considered, but failed to pass, a series of net neutrality bills since 2005 (most recently, a bill co-sponsored by then-Senators Clinton and Obama during the 2008 presidential election) suggests that Congress is, at best, unconcerned about, and, at worst, hostile to, such a proposal.[294] Perhaps more telling, several Senators and a majority of House members from both parties have written letters to the Commission opposing Chairman Genachowski's "Third Way" proposal.[295]

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292 *Id.*

293 *See id.* In *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985), the Supreme Court held that "the possibility that the application of a regulatory program may in some instances result in a taking of individual pieces of property is no justification for the use of narrowing constructions to curtail the program if compensation will in any event be available in those cases where a taking has occurred." *Id.* at 128. Because the Tucker Act allows affected owners to bring takings claims in the Court of Federal Claims, just compensation is often available in the event of an inadvertent taking that is the side effect of a regulation. *See id.*; *see also* Ry. Labor Execs. Ass'n v. United States, 987 F.2d 806, 816 (D.C. Cir. 1993). But *Riverside Bayview* made an exception for agency decisions "where it appears that there is an identifiable class of cases in which the application of a statute will necessarily or even probably constitute a taking." *Riverside Bayview*, 474 U.S. at 128 n.5 (citing United States v. Sec. Indus. Bank, 459 U.S. 70 (1982)). Such situations squarely present the separation-of-powers concerns addressed in *Bell Atlantic* and compel a narrowing construction, precisely to prevent the agency from "expos[ing] the Treasury to liability both massive and unforeseen." *Bell Atlantic*, 24 F.3d at 1445.

294 *See, e.g.*, *Debate Leaves FCC with No Defenders on Comcast-BitTorrent Order*, TR DAILY (Mar. 3, 2010), *available at* 2010 WLNR 4453724 ("Former U.S. Solicitor General Gregory Garre . . . . suggested that the FCC . . . ask[ ] Congress for explicit authority to regulate Internet traffic management—which could prove difficult since previous efforts by lawmakers to pass such regulation have failed . . . .").

295 *See Reclassification, Net Neutrality Should Be Distinct, Pelosi Says*, TELECOMM. REP. (June 15, 2010), *available at* 2010 WLNR 11841364 (noting letter sent by seventy-four House Democrats and other letters signed by 137 House Republicans and thirty-seven Republican Senators opposing reclassification plan).

The cornerstone of the "Third Way" proposal is the reclassification of broadband Internet services as a "telecommunications service" under Title II of the Communications Act, which the Commission began exploring after the *Comcast* decision rejected its argument that it could regulate broadband providers' network management practices under Title I.[296] But Congress wrote Title II to govern the telephone industry. Fitting broadband service into this framework is awkward, to say the least—as Chairman Genachowski freely admits, most of Title II's requirements would be, at best, irrelevant, and, at worst, affirmatively harmful, to the broadband industry.[297] To fit this square peg into Title II's round hole, the Commission would use its forbearance authority—a power given to promote competition in the telephone industry—to carve from the statute a Title II–lite law of broadband.

But the Takings Clause question complicates this already tricky set of legal maneuvers. *National Cable and Telecommunications Ass'n v. Brand X Services*[298] held that it is ambiguous whether "telecommunications service" as used in Title II includes broadband service.[299] While the Supreme Court deferred under *Chevron* to the Commission's classification of broadband service under Title I, it should not give the same level of deference to a decision to reclassify the industry under Title II. At the very least, this reclassification would implicate a "serious constitutional question" whether net neutrality constitutes either a physical taking under *Loretto* or a regulatory taking under *Penn Central*, suggesting that *Chevron* deference would be inappropriate to such a decision. Without explicit congressional authority to regulate broadband providers, *Bell Atlantic* and other decisions suggest that even the "Third Way" is unlikely to withstand judicial review.

CONCLUSION

At its core, net neutrality seeks to eliminate broadband providers' rights to discriminate among third-party content providers that seek to distribute material on their electronic networks. The policies implicated by such restrictions, and the effect upon the retained property rights of network owners, are issues that directly implicate the Takings Clause, because they extinguish broadband providers' right to exclude and appropriate the use of such networks for the public. Therefore the Court's physical takings jurisprudence should apply to

296 *See* Net Neutrality NPRM, *supra* note 2, at 62,649.

297 *See* Genachowski, *supra* note 118, at 4.

298 545 U.S. 967 (2005).

299 *See id.* at 989.

electronic networks, and the Commission's effort to impose net neutrality rules effects a taking under this line of cases, which cannot be accomplished without providing just compensation.

But a court reviewing the inevitable challenge to the Commission's proposed rules need not resolve whether net neutrality actually effects a taking under *Loretto* or the more ad hoc *Penn Central* test. It is sufficient to note that the issue presents a serious constitutional question, which implicates the presumption "that Congress does not casually authorize administrative agencies to interpret a statute to push the limit of congressional authority."[300] When coupled with the ongoing dialogue regarding the First Amendment implications of the proposed rule and the continuing skepticism expressed by the D.C. Circuit and members of Congress regarding the Commission's authority, this presumption suggests that the Commission would be better served to seek explicit congressional authority before carrying the net neutrality project forward. A refusal to do so risks judicial invalidation of Chairman Genachowski's "Open Internet" Initiative.

300 Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 172–73 (2001).