

NET NEUTRALITY AND NONDISCRIMINATION NORMS IN TELECOMMUNICATIONS

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“Net neutrality” refers to the principle that broadband providers should treat all Internet content and applications equally. After much debate, the Federal Communications Commission adopted binding net neutrality rules in December 2010, which forbid broadband providers from unreasonably discriminating when delivering Internet traffic.

The prohibition on unreasonable discrimination has a long pedigree in telecommunications law, and net neutrality proponents have long asserted the need to extend that nondiscrimination norm to cyberspace. But the Commission’s net neutrality rules impose far greater obligations on broadband providers than the law ever imposed on other telecommunications companies. While the Commission laudably seeks to protect consumers, its rules have the unintended consequence of stifling innovation in the broadband industry. A more nuanced set of restrictions grounded in the Commission’s traditional nondiscrimination rules would be far superior policy, and would reflect the learned wisdom of 75 years of telecommunications law.

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INTRODUCTION

In late 2010, the Federal Communications Commission adopted a revolutionary and controversial set of regulations designed to “preserve the Internet as an open platform for innovation, investment, job creation, economic growth, competition, and free expression.”¹ These rules are commonly known as “net neutrality.” Together, the net neutrality rules prescribe the conditions under which broadband providers, such as Verizon and Comcast, must make their networks available to Internet content and application providers, such as YouTube and Facebook. The cornerstone of this new regime is a nondiscrimination rule: With few exceptions, broadband providers may not block lawful Internet content or applications, nor may they unreasonably discriminate when carrying content or applications over their networks.²

The prohibition on unreasonable discrimination has a long pedigree in telecommunications law. Section 202 of the Communications Act prohibits common carriers from making “any unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services for or in connection with like communication service.”³ For more than 70 years, the Commission has regulated telephone companies under § 202 and has developed a

1. See *In re Preserving the Open Internet: Broadband Industry Practices*, 25 FCC Rcd. 17,905, 17,906 (2010) [hereinafter Net Neutrality Rules].

2. *Id.* at 17,941–51.

3. 47 U.S.C. § 202(a) (2012).

rich body of law defining what constitutes “unreasonable discrimination” in the telecommunications context.⁴

Net neutrality proponents have long asserted the need to extend that traditional nondiscrimination norm to cyberspace.⁵ Technically, § 202 does not apply to broadband Internet access service. The statute governs only providers of “telecommunications service,” a category which includes telephone companies and other older communications networks but not broadband providers.⁶ Yet the Internet is rapidly becoming the nation’s dominant communications network and bears many similarities to the older networks that § 202 does regulate.⁷ Just as a nondiscrimination norm was appropriate to regulate the telephone providers of the twentieth century, proponents argue, the same duties are necessary to govern Internet providers of the twenty-first century.⁸

But in some ways, the Commission’s net neutrality rules impose greater obligations on broadband providers than the law ever imposed on telephone companies. In telecommunications and other industries regulated as common carriers, the prohibition on “unreasonable discrimination” prevents a company from charging different rates to different customers for the same service.⁹ Common carriage law generally does not prevent regulated companies from charging different rates for *different* services. For example, the U.S. Postal Service, which is perhaps the quintessential common carrier, must make first-class mail available for all potential customers, but it may also charge an additional premium for customers willing to pay more for Priority or Express Mail. This “tiered-service model” serves a valuable function: It identifies those parcels that must be delivered faster than the typical letter, which allows the post office to engage in intelligent traffic management and to provide efficient service to differently situated customers.

4. See, e.g., *MCI Telecomm. Corp. v. FCC*, 917 F.2d 30 (D.C. Cir. 1990) (summarizing law).

5. See, e.g., Tim Wu, *Why Have a Telecommunications Law? Anti-Discrimination Norms in Communications*, 5 J. ON TELECOMM. & HIGH TECH. L. 15 (2006) (arguing for the need to adopt a broadband nondiscrimination obligation as the key legal question for telecommunications regulators). See generally Susan Crawford, *Transporting Communications*, 89 B.U. L. REV. 871 (2009) (analogizing broadband transport to traditional common carriage).

6. See *Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 967–68 (2005). As discussed below, the FCC has classified broadband as an “information service,” which is governed by Title I of the Act and is exempt from the more stringent Title II common carriage requirements. But *Brand X* suggests that the agency could reclassify broadband service as “telecommunications service” if it chose to do so.

7. See Wu, *supra* note 5, at 16 (“This paper argues that in the future the main point of the telecommunications law should be as an anti-discrimination regime, and that the main challenge for regulators will be getting the anti-discrimination rules right. The view advanced here, while much popularized over the last decade, has deeper roots reaching back to the origins of telecommunications and common carriage itself.”).

8. See *id.*

9. See, e.g., *MCI Telecomm. Corp.*, 917 F.2d at 39.

Yet the net neutrality rules prevent broadband providers from using this type of intelligent traffic management to route messages over their networks. For example, broadband providers may not enter into agreements that allow specific content providers (such as Netflix) to pay a premium for priority delivery on a network.¹⁰ Moreover, broadband providers cannot block a particular content or application provider from their networks, even if the reason is the content provider's refusal to pay a fee to use the network.¹¹ In cyberspace, not only are all content and application providers limited to "first-class mail" only, but the "post office" must deliver it free of charge.¹²

The expansive reach of the Commission's net neutrality rule is particularly surprising given the fact that most broadband markets do not exhibit the characteristics that have historically triggered nondiscrimination requirements. Over the past century, regulators have often justified common carriage obligations as a tool to control potential excesses by firms with market power. For example, Congress enacted § 202 to assure that the Bell telephone company did not abuse its monopoly position over most of the nation's telephone service.¹³ By comparison, the Commission has repeatedly noted that the broadband market is competitive, with 82% of Americans having a choice of at least two providers for broadband service.¹⁴ And that competitiveness will increase if wireless broadband service develops as a viable third alternative, the same way that satellite developed as a wireless alternative to cable.¹⁵ Meanwhile, the Commission has noted only a handful of instances in which broadband providers have exploited what market

10. Net Neutrality Rules, *supra* note 1, at 17,947 ("[A] commercial arrangement between a broadband provider and a third party to directly or indirectly favor some traffic over other traffic in the broadband Internet access service connection to a subscriber of the broadband provider (i.e., 'pay for priority') would raise significant cause for concern [A]s a general matter, it is unlikely that pay for priority would satisfy the 'no unreasonable discrimination' standard.").

11. *Id.* at 17,943–44 ("Some concerns have been expressed that broadband providers may seek to charge edge providers simply for delivering traffic to or carrying traffic from the broadband provider's end-user customers. To the extent that a content, application, or service provider could avoid being blocked only by paying a fee, charging such a fee would not be permissible under these rules.").

12. Of course, this comparison is imperfect: Unlike the postal service, broadband providers charge end-user consumers to be on the network.

13. *Cf. Ting v. AT&T*, 319 F.3d 1126, 1145 (9th Cir. 2003) ("Thus, in contrast to 1934, when Congress enacted §§ 201(b) and 202(a) to protect customers for whom AT&T was the only option, the FCC now defers to the market unless the market is seriously flawed or not competitive.").

14. FCC, NATIONAL BROADBAND PLAN 37 (2010), available at <http://download.broadband.gov/plan/national-broadband-plan-chapter-4-broadband-competition-and-innovation-policy.pdf>.

15. *Cf. id.* at 76, available at <http://download.broadband.gov/plan/national-broadband-plan-chapter-5-spectrum.pdf>.

power they do have to hurt consumers.¹⁶ For this reason, opponents have long described net neutrality as a “solution in search of a problem.”¹⁷

When examined through the lens of history and the policy underlying that history, one realizes that the Commission’s net neutrality rules reach too far. Given the similarities between broadband networks and other telecommunications networks, some form of nondiscrimination duty is probably appropriate. But the history of § 202 suggests that the rule should be far more modest than the Commission’s current framework. The current rule ignores the fact that content and application providers have different bandwidth demands and that network capacity is a limited resource that must be allocated to fit those providers’ needs efficiently. It thus disregards the benefits of flexible, intelligent traffic management by broadband providers. It also unnecessarily limits innovation in the broadband provider market and downplays the importance of antitrust law as a mechanism to discipline anticompetitive conduct. A more nuanced, modest set of restrictions based on § 202 would be far superior policy and would reflect the learned wisdom of nearly 75 years of common carriage law as applied to telecommunications.

I. DEVELOPMENT OF THE OPEN INTERNET RULES

A. Defining Net Neutrality

Before putting the Commission’s nondiscrimination obligation into historical context, it is helpful to define net neutrality, examine the history of the present rules, and explain what specific duties those rules impose upon broadband service providers. Net neutrality is a somewhat elusive term, one that holds different meanings for different speakers. A useful place to start is with Commission Chairman Julius Genachowski’s preferred metaphor. The Commission’s new rules, he explained, are designed to regulate the “on-ramps to the Internet,”¹⁸ the privately held telecommunications networks that connect

16. See Net Neutrality Rules, *supra* note 1, at 17,925, nn.104–05 (citing Madison River Commc’ns, LLC and affiliated companies, File No. EB-05-IH-0110; Acct. No.; FRN: 0004334082, Consent Decree, 20 FCC Rcd. 4295 (EB 2005); *In re* Formal Complaint of Free Press and Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13,028, 13,028, 13,055–56 (2008)).

17. See, e.g., Babette E.L. Boliek, *Wireless Net Neutrality and the Problem with Pricing: An Empirical, Cautionary Tale*, 16 MICH. TELECOMM. & TECH. L. REV. 1, 22 (2009) (“[C]ritics of network neutrality regulation have often said that it is a solution in search of a problem.”) (citing Amy Schatz, *U.S. as Traffic Cop in Web Fight*, WALL ST. J., Sept. 19, 2009, at A1); see also Preserving the Open Internet: Broadband Industry Practices, Notice of Proposed Rulemaking, 24 FCC Rcd. 13,064, 13,088 (2009) (“Other parties have suggested that ‘the problems are all potential problems, not actual problems’ and that the ‘fundamental inability to demonstrate any evidence of an actual market failure confirms what all the rhetoric in the world cannot obscure: ‘net neutrality’ is a solution in search of a problem.” (citing comments)).

18. Julius Genachowski, *Conversations with FCC Chairman Julius Genachowski: Thoughts on the October Commission Meeting & the Open Internet NPRM* (Oct. 22, 2009), available at http://www.openinternet.gov/openmeetings/2009_10_22-

individual consumers to the Internet's servers. When a consumer requests content from the Internet (such as a webpage or video clip), the host server breaks the content into several small digital packets. Each packet travels over a series of networks to the consumer.¹⁹ In the final leg of that journey, these packets travel over the wires owned by the consumer's broadband provider to get to the consumer's computer, where they are reassembled into the requested message.

Net neutrality proponents have long been concerned by the fact that broadband providers control this vital chokepoint between individual consumers and the Internet. By regulating the terms upon which content providers use their networks to reach consumers, broadband providers could manipulate the flow of information in society. For example, Comcast could conceivably block consumer access to websites like www.comcastsucks.org that criticize the company.²⁰ Perhaps more realistically, Comcast could block or degrade content and applications like Netflix that compete against its other revenue-generating services.²¹ Unlike America Online and other first-generation dial-up Internet access providers, most broadband providers do not specialize in providing Internet access alone. Rather, the largest broadband providers are cable and telephone companies, which have incentives to prevent customers from using their broadband connections in ways that threaten their other revenue streams. For example, consumer groups have expressed concerns that broadband Internet providers that also offer on-demand movie rentals via cable might discriminate against other services (such as Netflix or BitTorrent) that make movies available over a broadband connection.²² Similarly, the Commission has suggested that AT&T initially blocked Voice-over-Internet-Protocol ("VoIP") applications, such as Skype, from operating on the iPhone over the AT&T network because these applications competed against the provider's wireless telephone business.²³

Even benign content discrimination can distort the ongoing development of the Internet ecosystem. As Professors Larry Lessig and Tim Wu have explained, a broadband provider's ability to block or degrade certain content runs afoul of the

[oem.html](#) (last visited Oct. 23, 2012); *see also* Prof. Gigi B. Sohn, President and Founder of Public Knowledge, Remarks at 2009 National Lawyers Convention Panel, hosted by Federalist Society for Law and Public Policy, in *Broadband Policy: One Year in*, 7 SETON HALL CIR. REV. 27, 40 (2009) ("First of all, net neutrality is not about regulating the Internet. I think that's really important. It's not about regulating the content, services, and applications that make up the Internet; it's about regulating the on-ramps, the ISPs that provide the on-ramps to the Internet, to ensure that they don't pick winners and losers.").

19. *See Intel Corp., The Internet Lesson 4: Breaking Messages into Packets*, JOURNEY INSIDE, http://www97.intel.com/en/TheJourneyInside/ExploreTheCurriculum/EC_TheInternet/ILesson4/ (last visited Sept. 13, 2011).

20. *Cf. Morrison & Foerster, LLP v. Wick*, 94 F. Supp. 2d 1125, 1134 (D. Colo. 2000) (allowing partnership holding registered trademark to block website using trademark to criticize partnership practices).

21. *See Net Neutrality Rules*, *supra* note 1, at 17,916.

22. *See In re Formal Complaint of Free Press and Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications*, 23 FCC Rcd. 13,028, 13,029–33 (2008).

23. *Net Neutrality Rules*, *supra* note 1, at 17,925 & nn.106–07.

end-to-end principle upon which the Internet was built.²⁴ The Internet is comprised of a series of “best efforts” networks, each of which helps deliver any and all digital packets based upon the network’s best guess as to how to forward each packet to its final destination.²⁵ A critical element of this network architecture is that best efforts networks are indifferent as to the content of each packet. This functionality greatly reduces the cost of cyberspace innovation: As long as a service can be converted to digital packets, the network will facilitate its delivery to the consumer just like any other service in cyberspace.²⁶ A developer needs only to write a program and place it on a public server, and the program is then immediately available to millions of Internet users worldwide. As Robert Atkinson and Philip Weiser note,

This architecture enabled companies like Google and eBay to come out of nowhere—a garage, if you will—to contribute greatly to the Internet economy. Indeed, most (if not all) of the significant Internet innovations were developed or deployed by individuals and firms with no connection to the established providers—ranging from e-commerce (Amazon.com and eBay), to search (Google), to VoIP (Vonage and Skype), to a host of other applications.²⁷

If broadband providers departed from the best efforts principle and instead prioritized certain packets over others on the basis of content, they could distort the market for Internet content and applications. As Professors Lessig and Wu explain, prioritization “threaten[s] to replace survival-of-the-fittest with survival-of-the-favored.”²⁸ Rather than allowing competition to shape the market for Internet content, broadband providers could pick and choose winners by prioritizing favored competitors. And if broadband providers could charge for priority delivery, they would dramatically raise the cost of Internet innovation by requiring programmers to pay a toll before their products could reach consumers. This could shift power toward well-funded corporate developers and away from the garage-programmers whose innovations have made the Internet what it is.

Opponents of net neutrality offer several responses to these arguments. First and foremost, they note that even without a net neutrality rule, there have been few significant instances of discriminatory conduct by broadband providers.²⁹

24. See Lawrence Lessig & Tim Wu, *Ex Parte* Submission in CS Docket No. 02-52 at 5–6 (August 22, 2003), available at http://timwu.org/wu_lessig_fcc.pdf.

25. See Robert D. Atkinson & Philip J. Weiser, *A “Third Way” on Network Neutrality*, INFO. TECH. & INNOVATION FOUNDATION 4, May 30, 2006, available at <http://www.itif.org/files/netneutrality.pdf>.

26. Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. ON TELECOMM. & HIGH TECH. L. 141, 145–46 (2003).

27. Atkinson & Weiser, *supra* note 25, at 4.

28. Lessig & Wu, *supra* note 24, at 6.

29. The FCC cited only three incidents in its net neutrality rules: a 2005 investigation into Madison River Communications, which was accused of blocking its customers from using Voice-Over-Internet-Protocol services that competed against Madison River’s own telephone service, which was resolved by consent decree; a 2008 investigation into Comcast Corporation’s throttling of BitTorrent traffic over its broadband networks,

In part, this is because broadband providers generally have strong incentives *not* to block content or applications on their networks. At their core, these companies do not themselves provide most online products that their customers want. Rather, broadband providers connect customers to the services available in cyberspace—and the value of that connection to the customer is directly related to the number of sites the customer can reach. “[W]ithout the Googles of the world—who make broadband providers more valuable by enhancing their functionality—the AT&Ts of the world would have to charge less for broadband Internet access.”³⁰ Every website or application that is blocked reduces the value of broadband access to the consumer and, therefore, adversely affects the price the consumer will pay for the broadband provider’s service.

And while critics acknowledge that broadband providers may have economic incentives to block or degrade certain content or application providers, competitive pressure and antitrust law each help to police such misbehavior. If a company has market power, antitrust doctrines—such as the law governing unilateral refusals to deal—protect consumers just as they do in every other area of the economy.³¹ Therefore, although some government oversight is appropriate, critics question whether stringent Commission regulation benefits consumers above and beyond the protections they receive from general economic regulations.³²

Moreover, these critics argue that the end-to-end architecture that Lessig and Wu champion may in fact hamper future Internet-based innovations. As Atkinson and Weiser note, “‘best effort’ networks . . . represent[] a questionable

which Comcast discontinued; and a vague reference to AT&T’s efforts to limit the types of applications that iPhone customers could use over the AT&T Wireless network, which appear to have been resolved to the Commission’s satisfaction. *See* Net Neutrality Rules, *supra* note 1, 17,925 & nn.104–05 (citing, among others, *Madison River Commc’ns, LLC and affiliated companies*, Consent Decree, 20 FCC Rcd. 4295 (EB 2005); *In re* Formal Complaint of Free Press and Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13,028 (2008). *See generally* Daniel A. Lyons, *Virtual Takings: The Coming Fifth Amendment Challenge to Net Neutrality Regulation*, 86 NOTRE DAME L. REV. 65, 81–82 (2011) (discussing *Madison River* and *Comcast* cases).

30. Atkinson & Weiser, *supra* note 25, at 7.

31. *See, e.g.*, *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 483 n.32 (1992) (“[A] firm can refuse to deal with its competitors. But such a right is not absolute; it exists only if there are legitimate competitive reasons for the refusal.”); *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 605 (1985) (“If a firm has been ‘attempting to exclude rivals on some basis other than efficiency,’ it is fair to characterize its behavior as predatory.”); *Otter Tail Power Co. v. United States*, 410 U.S. 366, 378 (1973). *See generally* 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, 57 (2009) (advocating for antitrust-based oversight of broadband competition policy and explaining that “net neutrality disputes are, at bottom, disputes about the proper application of core antitrust principles”).

32. *See* Babette E.L. Boliek, *FCC Regulation vs. Antitrust: How Net Neutrality is Defining the Boundaries*, 52 B.C. L. REV. 1627, 1678 (2011).

platform for the deployment of applications requiring quality of service assurances.”³³ This is because the end-to-end architecture provides no guarantee that individual packets will arrive at their destinations quickly, or at all. Network congestion can be a significant driver of packet delay. If more packets attempt to pass through an intermediate router than the router can handle at a particular moment, the router will alleviate the congestion by delaying or dropping packets. For older applications like e-mail and the World Wide Web, packet delay is an insignificant problem. Because the whole message displays once the final packet is delivered, the consumer experiences at most a short delay in loading time. But for streaming video content and interactive applications, such as video conferencing and online gaming, the consumer experience depends on a steady stream of packets at regular intervals. Delays in the spacing of packets in a stream can cause jitter, which results in a temporary freezing of the video image as the consumer’s computer waits for the packet stream to catch up.³⁴ Jitter can substantially erode a consumer’s experience and renders an application less valuable or (in some circumstances) useless. If broadband providers could offer quality-of-service guarantees, which would give protected packets priority in the event of network congestion, the quality and quantity of these next-generation applications would increase, because application providers could minimize jitter and improve the consumer’s experience.

Finally, broadband providers note that their networks were not developed free of cost. They were the result of literally billions of dollars of private investment to lay high-speed cables across the country. Broadband providers seek to recover those investments in part by charging consumers monthly subscription fees for broadband Internet access. But broadband Internet access charges are insufficient alone to recoup those investments, particularly if our society is concerned with keeping broadband affordable and avoiding a digital divide.³⁵ Broadband providers also seek to recover their investments by selling premium services that high-speed cable makes possible—services like premium telephony, cable television, and video on-demand services.³⁶ If the broadband network becomes congested in a way that would degrade these services, broadband

33. Atkinson & Weiser, *supra* note 25, at 4.

34. See Christopher S. Yoo, *The Changing Patterns of Internet Usage*, 63 FED. COMM. L.J. 67, 71–72 (2010).

35. See, e.g., *Wall Street’s Perspective on Telecommunications: Hearing Before the S. Comm. on Com., Sci. & Transp.*, 109th Cong. 15 (2006) (testimony of Craig E. Moffett, Vice President and Senior Analyst, Sanford C. Bernstein and Co., LLP) (“Mandated ‘Net Neutrality’ would further sour Wall Street’s taste for broadband infrastructure investments, making it increasingly difficult to sustain the necessary capital investments. It would also likely mean that consumers alone would be required to foot the bill for whatever future network investments that *do* get made.”).

36. See, e.g., Implementation of Section 621(a)(1) of the Cable Communications Policy Act of 1984 As Amended by the Cable Television Consumer Protection and Competition Act of 1992, Notice of Proposed Rulemaking, 20 FCC Rcd. 18,581, 18,590 (2005) (noting “the relationship between the ability to offer video programming and the willingness to invest in broadband facilities”).

providers would like the flexibility to prioritize their own services' packets, since they have contractual obligations to their premium service customers.³⁷

It is also important to recognize the limits of the net neutrality debate. Net neutrality focuses on the potential terms and conditions that broadband providers can impose upon content and application providers, such as Google. It is not about the rates that broadband providers can charge end-user consumers for Internet access. Both sides of the debate agree that broadband providers should be permitted to charge end-users different rates based on the amount of bandwidth they consume each month. Therefore, although Chairman Genachowski often refers to net neutrality as regulating the "onramp to the Internet,"³⁸ it is perhaps more accurate to describe it as regulating the Internet's offramp: the flow of information from Internet-based content and application providers to consumers.

B. The Evolution of Net Neutrality Obligations

The Commission first weighed in on the net neutrality debate with an addendum to a 2005 order governing broadband service offered over telephone lines.³⁹ Prior to this order, an "open access" regime governed telephone-based Internet access: If a telephone company offered Internet access, it had to make its wires available to rival Internet service providers, such as America Online, to use in competition with the phone company.⁴⁰ The open access requirement was a legacy of the era when AT&T monopolized the telephone industry.⁴¹ But as the broadband industry developed, the open access restriction inhibited telephone companies' ability to compete against cable-based broadband service, which was not saddled with the same limitations.⁴² To achieve regulatory parity and promote

37. Christopher S. Yoo, *Network Neutrality and the Need for a Technological Turn in Internet Scholarship*, in HANDBOOK OF MEDIA LAW AND POLICY: A SOCIO-LEGAL EXPLORATION (Monroe E. Price & Stefaan G. Verhulst eds., forthcoming 2012) (noting that "U-verse (AT&T's video service) does not have enough bandwidth to provide video in the same manner as cable companies and FiOS. Thus, in order to avoid the delays that can render video programming unwatchable, U-verse reserves bandwidth for its own proprietary video offerings and gives its video traffic priority over other traffic"), available at <http://ssrn.com/abstract=2063994>.

38. See *supra* note 18 and accompanying text.

39. See Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Policy Statement, 20 FCC Rcd. 14,986, 14,988 (2005) [hereinafter Internet Policy Statement].

40. See Second Computer Inquiry, 77 F.C.C.2d 1980 ("Computer II"), *aff'd sub nom.* Computer & Commc'ns. Indus. Ass'n. v. FCC, 693 F.2d 198 (D.C. Cir. 1982).

41. Appropriate Framework for Broadband Access to the Internet over Wireline Facilities: Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd. 14,853, 14,686 (2005) [hereinafter Appropriate Framework for Broadband Access].

42. See Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities: Internet Over Cable Declaratory Ruling, Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities, 17 FCC Rcd. 4798 (2002). The Supreme Court blessed the agency's decision in *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967 (2005).

facilities-based competition, the Commission reclassified telephone-based broadband service and thus lifted the open access restriction.⁴³

But through a companion policy statement, the Commission signaled that this deregulatory move should not be confused with a general abdication of authority to regulate broadband. Rather, the Commission explained that it “has a duty to preserve and promote the vibrant and open character of the Internet as the telecommunications marketplace enters the broadband age.”⁴⁴ To that end, the Commission announced four principles that would guide its Internet policy: Consumers are entitled to

- Access lawful Internet content of their choice;
- Run applications and use services of their choice;
- Connect their choice of legal devices that do not harm the network; and
- Competition among network providers, application and service providers, and content providers.⁴⁵

The principles were contained in a policy statement and therefore did not contain any binding obligations,⁴⁶ a fact that the Commission acknowledged.⁴⁷ Nonetheless, the Commission explained that it would “incorporate the above principles into its ongoing policymaking activities.”⁴⁸ The non-binding policy statement was seen as a warning shot at the broadband industry, signaling that the Commission took seriously net neutrality proponents’ concerns about bottleneck discrimination.

Initially, the Commission sought voluntary industry compliance with its new principles. In exchange for Commission approval of its 2005 acquisition of AT&T, SBC Communications agreed to “conduct business in a manner that comports with the principles set forth in the FCC’s Policy Statement” for two years after the merger closing date.⁴⁹ The company later extended its compliance for an additional 30 months in exchange for the Commission’s approval of its merger with BellSouth.⁵⁰ The Commission solicited a similar two-year commitment from Verizon Communications as a condition of approving its 2005

43. Appropriate Framework for Broadband Access, *supra* note 41, at 14,875–77.

44. Internet Policy Statement, *supra* note 39, at 14,988.

45. *Id.*

46. *See, e.g.,* Christensen v. Harris County, 529 U.S. 576, 587 (2000) (“Interpretations such as those in opinion letters-like interpretations contained in policy statements . . . lack the force of law . . .”).

47. Internet Policy Statement, *supra* note 39, at 14,998 n.15 (“Accordingly, we are not adopting rules in this policy statement.”).

48. *Id.* at 14,998.

49. SBC Commc’ns, Inc. and AT&T Corp. Applications for Approval of Transfer of Control, Memorandum Opinion and Order, 20 FCC Rcd. 18,290, 18,392 & app. F (2005).

50. AT&T Inc. and BellSouth Corp. Application for Transfer of Control, Memorandum Opinion and Order, 22 FCC Rcd. 5662, 5814 app. F (2007).

merger with MCI.⁵¹ It also attached openness conditions to a valuable 2008 spectrum license auction, which required the winner (Verizon Wireless) to permit any lawful wireless device to use that spectrum for service.⁵²

But a high-profile incident led the Commission to reconsider its adherence to voluntary compliance. In late 2007, a Commission investigation showed that Comcast was surreptitiously “throttling” (slowing delivery of) broadband traffic from users of BitTorrent and other peer-to-peer networking applications, which allow users to share files with one another.⁵³ Comcast claimed throttling was necessary to manage the significant network traffic imposed by torrent users.⁵⁴ But opponents suggested a more anticompetitive motive, alleging that torrenting of movies online was cutting into Comcast’s on-demand movie rental business.⁵⁵ In an adjudicatory hearing, the Commission ruled that its Internet Policy Statement should be binding on broadband providers and that Comcast had violated the statement by interfering with customers’ ability to run applications and access content of their choice.⁵⁶ Shortly thereafter, the Commission promulgated a notice of proposed rulemaking that sought to place binding net neutrality obligations on broadband providers to preserve an open Internet.⁵⁷

But just days before the comment period closed in April 2010, the D.C. Circuit Court of Appeals overturned the *Comcast* order on jurisdictional grounds.⁵⁸ Unlike its powers over broadcasting, cable, and telecommunications service, the Commission lacks explicit jurisdiction to regulate broadband service, which it has classified as an “information service.”⁵⁹ Instead, the Commission anchored the *Comcast* order in its so-called “ancillary authority,” which allows the agency to regulate other communications by wire or radio if this regulation is reasonably ancillary to the Commission’s direct responsibilities.⁶⁰ While the court recognized

51. See *Verizon Commc’ns Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd. 18,433, 18,537 (2005).

52. *Service Rules for the 698–746, 747–762 and 777–792 MHz Bands et al.*, Second Report and Order, 22 FCC Rcd. 15,289, 15,361–62 (2007); 47 C.F.R. § 27.16 (2012).

53. *In re Comcast*, 23 FCC Rcd. 13,028, 13,030–31 (2008). Comcast initially disclaimed any wrongdoing but later confessed after independent testing by the Associated Press and consumer interest groups confirmed the company’s actions. The Commission was troubled not only because Comcast initially misled the public about its actions, but also because of the fraudulent nature of the throttling. When the network detected a peer-to-peer transmission, Comcast would forge a packet to each party claiming to be from the other user and signaling a desire to terminate the transmission.

54. *Id.* at 13,031–32.

55. *Id.* at 13,030.

56. *Id.* at 13,050–51.

57. See *Preserving the Open Internet, Broadband Industry Practices*, Notice of Proposed Rulemaking, 24 FCC Rcd. 13,064, 13,067 (2009). See generally Lyons, *supra* note 29, at 83–86 (summarizing the proposed rule).

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

59. *Id.* at 645.

60. *Id.* at 646 (quoting *United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968)).

that broadband service is indeed communication by wire or radio, it rejected the Commission's arguments that broadband network management rules were reasonably ancillary to its duties to regulate broadcasting, cable, or telecommunications service.⁶¹

The *Comcast* decision served as a judicial shot across the bow of the Commission's nascent net neutrality project.⁶² The proposed net neutrality rules relied on (at times almost word-for-word) the jurisdictional arguments that the *Comcast* court rejected, and thus the Commission's authority to enact the new rules was questionable. It appeared for some time that the Commission might reclassify broadband service as a Title II telecommunications service, which would bring the industry within the Commission's direct authority.⁶³ This move would have been the equivalent of fitting a square peg in a round hole: Congress wrote Title II to govern the telephone industry, and many of its provisions would be either irrelevant or harmful if applied to broadband. Although the Commission could exercise its forbearance authority to mitigate these concerns,⁶⁴ it ultimately chose to avoid reclassification and instead imposed net neutrality obligations on the broadband industry using the ancillary authority that the *Comcast* court had called into question.

C. The Commission's Net Neutrality Rules

The final order adopted three basic rules to preserve the free and open Internet. The first is a transparency rule. Broadband providers must "publicly disclose accurate information regarding the network management practices, performance, and commercial terms of [their] broadband Internet access services."⁶⁵ Such information includes rules regarding pricing, performance

61. *Id.* at 659–61.

62. See Daniel A. Lyons, *Tethering the Administrative State: The Case Against Chevron Deference for FCC Jurisdictional Claims*, 36 J. CORP. L. 823, 840–45 (2011) (discussing the *Comcast* decision as part of an institutional dialogue among the court, the agency, and Congress regarding the proper decisionmaker for Internet policy).

63. See Framework for Broadband Internet Serv., Notice of Inquiry, 25 FCC Rcd. 7866, 7889–907 (2010) (proposing reclassification of broadband networks under Title II).

64. *Id.* at 7895. Chairman Genachowski and Commission General Counsel Austin Schlick both endorsed this jurisdictional move, which one might label "Title II-lite" regulation. See Julius Genachowski, *The Third Way: A Narrowly Tailored Broadband Framework*, BROADBAND.GOV (May 6, 2010), <http://www.broadband.gov/the-third-way-narrowly-tailored-broadband-framework-chairman-julius-genachowski.html>. Specifically, the Commission would have reclassified the transport element of broadband service as a Title II telecommunications service, but then forbore from applying any part of Title II to broadband transport other than §§ 201, 202, and 208 (relating to nondiscrimination obligations placed on telecommunications providers), and §§ 222, 254, and 255 (imposing obligations related to privacy, universal service funding, and access requirements for hearing-impaired users). *Id.* Had the Commission taken this route, the question addressed in this Article would be more squarely presented, because the Commission would be imposing § 202 directly on broadband providers.

65. Net Neutrality Rules, *supra* note 1, at 17,937.

characteristics, privacy policies, security, congestion-management rules, application-specific behavior, and device attachment.⁶⁶ The transparency rules assure that customers can make informed choices among broadband providers and provide a vehicle through which broadband providers can be held accountable if they fail to maintain an open Internet.⁶⁷

Second, broadband providers who provide “fixed” broadband service, such as traditional telephone and cable providers, may not “block lawful content, applications, services, or nonharmful devices.”⁶⁸ This rule thus aims to preserve the basic principles of the Internet Policy Statement, that consumers are entitled to their choice of lawful content, services, and devices on the Internet. The Commission clarified that the no-blocking rule requires that content and application providers must be able to reach a broadband provider’s customers for free: “To the extent that a content, application, or service provider could avoid being blocked only by paying a fee, charging such a fee would not be permissible under these rules.”⁶⁹ However, because the mobile broadband industry is still developing, mobile broadband providers are only prohibited from blocking websites and any applications that compete with the provider’s voice or video telephony service.⁷⁰

Finally, fixed broadband providers “shall not unreasonably discriminate in transmitting lawful network traffic over a consumer’s broadband Internet access service.”⁷¹ This language is reminiscent of the common carriage duties that Title II imposes on telecommunications providers and codifies the proposed additional rule introduced for the first time in the notice of proposed rulemaking. The Commission declined to define unreasonable discrimination, though it offered a few guideposts for consideration. Differential treatment of traffic is more likely to be reasonable if it is clearly disclosed to customers, if it places the decision-making largely in the hands of end-users rather than providers, and if it does not discriminate among specific uses of the network or classes of uses.⁷² The Commission clarified that charging end-user customers different rates based upon their bandwidth use would be reasonable⁷³ but that charging content and application providers for priority access “would raise significant cause for concern.”⁷⁴ As with the blocking rule, the prohibition on unreasonable discrimination does not bind wireless broadband providers.

The rules also contain two safe harbors. First, conduct that otherwise may violate the rules would be permissible if it constitutes “reasonable network

66. *Id.* at 17,938.
67. *Id.* at 17,936–37.
68. *Id.* at 17,942.
69. *Id.* at 17,943–44.
70. *Id.* at 17,950.
71. *Id.* at 17,944.
72. *Id.* at 17,944–45.
73. *Id.* at 17,945.
74. *Id.* at 17,947–48.

management.”⁷⁵ “A network management practice is reasonable if it is appropriate and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.”⁷⁶ Examples of a legitimate purpose include maintaining network security, blocking harmful traffic, or enacting the legitimate preferences of end-users. Second, broadband providers are permitted to provide so-called “specialized services,” such as VoIP or IP-based cable service, which share space on the broadband provider’s network,⁷⁷ though the Commission will monitor such services closely to make sure providers do not use this carve-out as a way to circumvent the net neutrality rules.

Thus while the Commission provided a general explanation to broadband providers of permissible and impermissible forms of network traffic management, it was purposely vague regarding detailed guidelines. The Commission explained that in a dynamic environment such as cyberspace, it preferred to develop guidance on a case-by-case basis through the adjudicative process, rather than provide detailed rules that could ossify policy in a way that would be either over- or underinclusive when applied to the developing Internet ecosystem.

But it is important to note that this is not the agency’s first attempt to define a nondiscrimination rule. The net neutrality rules borrow the phrase “unreasonable discrimination” from § 202 of the Act, where it has been subject to more than 70 years of common-law-like development through the adjudicative process. The purpose of both provisions is similar: The Commission seeks to prohibit network providers with control over the flow of information from unduly affecting that information flow in a way that could harm consumers. Thus, the history of § 202 can cast significant light upon the proper role of a nondiscrimination norm as applied to cyberspace. And while the Commission explicitly stated that it has no intention of imposing burdensome common-carriage-like duties on broadband providers,⁷⁸ a more detailed glance at § 202 suggests that in some ways, the net neutrality rules are *more* restrictive than § 202 ever was. It is to this inquiry that this Article now turns.

II. “UNREASONABLE DISCRIMINATION” IN HISTORICAL CONTEXT

A. *Economic Discrimination and § 202*

One might begin this inquiry by determining the purpose of nondiscrimination law. In his article on the topic, Tim Wu explains that nondiscrimination rules are an integral part of a legal system designed “to foster the vibrancy and health of [a] part of the nation’s public infrastructure.”⁷⁹ Historically, common carriage regimes applied to “businesses affected with the public interest,” a notoriously vague definition coined by Lord Matthew Hale in

75. *Id.* at 17,951.
76. *Id.* at 17,952.
77. *Id.* at 17,965.
78. *Id.* at 17,950–51.
79. Wu, *supra* note 5, at 26.

1787 to describe certain companies that provide essential social services.⁸⁰ In the Anglo-American tradition these businesses included package carriers, taxis, railroads, inns, grain elevators, and utilities, among others.⁸¹ Underlying these legal regimes is a sense that, because of network architecture, historic accident, necessity, or market power, these industries should generally be required to treat similarly situated customers in a similar fashion. Although as Thomas Nachbar notes in his comprehensive study of the subject, “[t]here is no particularly good rule for distinguishing industries subjected to nondiscrimination obligations from those with complete discretion in their dealings.”⁸² As Wu discusses, there are myriad risks that face a regulator seeking to promote the health of the nation’s communications networks. An underregulated network poses the risk that a private network owner may make decisions that maximize self-interest but damage the overall social value of the network—for example, by using network access to distort other markets in which the company also operates.⁸³ Moreover, a firm may be unable to capture all the positive externalities that a network creates for society, and its attempts to do so may damage the network’s value.⁸⁴

But of course, overregulation poses its own dangers. Government’s efforts to plan today based on predictions of the future “have a storied history of failure.”⁸⁵ Wu highlights the Commission’s past efforts to promote UHF as a competitive alternative to existing broadcast television, and its recent expensive digital television transition, neither of which proved successful.⁸⁶ One could also include in this category the Commission’s efforts to promote local telephone competition in the late 1990s by compelling incumbent telephone companies to make their networks available to competitors, an experiment that is widely viewed as a failure.⁸⁷

The Communications Act of 1934 strikes this balance between over- and underregulation by prohibiting unreasonable discrimination by telecommunications providers.⁸⁸ Congress imported this duty from the Interstate Commerce Act, which had applied a similar standard to the nation’s transportation and certain other interstate industries for decades.⁸⁹ The bar on unreasonable

80. *Id.* at 30–31; *see also* Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323, 1332–33 (1998); Thomas B. Nachbar, *The Public Network*, 17 COMM.LAW CONSPECTUS 67, 69, 82, 90 (2008) (discussing the history of common carriage generally and Lord Hale specifically).

81. Nachbar, *supra* note 80, at 76–77.

82. *Id.* at 75.

83. Wu, *supra* note 5, at 27.

84. *Id.*

85. *Id.*

86. *Id.*

87. *Id.* at 17; *see also* Jim Chen, *The Echoes of Forgotten Footfalls: Telecommunications Mergers at the Dawn of the Digital Millennium*, 43 HOUS. L. REV. 1311, 1313 & n.8 (2007).

88. 47 U.S.C. § 202 (2012).

89. *See, e.g.*, *MCI Telecomms. Corp. v. FCC*, 917 F.2d 30, 37–38 (D.C. Cir. 1990).

discrimination was part of a package of reforms through which Congress legally sanctioned the Bell Telephone Company's monopolization of the nation's telephone system in exchange for a commitment to provide universal telephone service to all interested customers at reasonable rates.⁹⁰

Because "discrimination" carries such a negative connotation, it is important to define precisely what the term means in the economic context.⁹¹ Economists define price discrimination as selling two customers the same good at different prices, but the price difference is not explained by differences in the seller's cost.⁹² In competitive industries, price discrimination is a fairly common phenomenon despite its sinister undertone. For example, movie theaters offer discounted tickets to seniors and children (thus charging other moviegoers a higher price for the same good).⁹³ Price discrimination can be lucrative because different customers have different reservation prices (the maximum price the customer is willing to pay for a good).⁹⁴ By charging a higher price to customers with higher reservation prices, a firm can capture more profit from customers who greatly value the product, without sacrificing sales to those who value the product less.

Two important observations flow from this discussion. First, not all price *differentiation* constitutes price *discrimination*.⁹⁵ Differences in price that result from a difference in quality of service, or difference in cost, cannot constitute price discrimination, because the vendor is not charging different prices for the same good. To paraphrase Matthew Edwards, a car dealer engages in price discrimination if he sells the same model Honda four-cylinder car to different customers at different prices (for example, because one customer haggled more

90. See, e.g., Daniel A. Lyons, *Technology Convergence and Federalism: Who Should Decide the Future of Telecommunications Regulation?*, 43 U. MICH. J.L. REFORM 383, 388 (2010); Livia Solange West, *Deregulating Telecommunications: The Conflict Between Competition and Universal Service*, 9 DEPAUL BUS. L.J. 159, 165–66 (1996).

91. See, e.g., Atkinson & Weiser, *supra* note 25, at 6 ("Price discrimination gets a bad name in part because it sounds sinister (as does anything with 'discrimination' in the title)."); Boliek, *supra* note 32, at 1678 ("Although 'discrimination' has a negative popular association, in economic theory, price discrimination may actually serve to increase consumer welfare.").

92. See, e.g., Matthew A. Edwards, *Price and Prejudice: The Case Against Consumer Equality in the Information Age*, 10 LEWIS & CLARK L. REV. 559, 562 (2006). More precisely, price discrimination occurs when two similar goods are sold at prices that exhibit different ratios of price to cost. See, e.g., George S. Ford & Lawrence J. Spiwak, *Non-Discrimination or Just Non-Sense: A Law and Economics Review of the FCC's New Net Neutrality Principle*, 10-03 PHX. CENTER PERSP. 1, 2 (2010), available at <http://www.phoenix-center.org/perspectives/Perspective10-03Final.pdf>; Daniel J. Gifford & Robert T. Kudrle, *The Law and Economics of Price Discrimination in Modern Economies: Time for Reconciliation?* 43 U.C. DAVIS L. REV. 1235, 1239–40 (2010).

93. Edwards, *supra* note 92, at 562 & n.14 (citing Mark Klock, *Unconscionability and Price Discrimination*, 69 TENN. L. REV. 317, 331 (2002); Michael J. Meurer, *Copyright Law and Price Discrimination*, 23 CARDOZO L. REV. 55, 70 (2001)).

94. See Edwards, *supra* note 92, at 563.

95. Boliek, *supra* note 32, at 1678–79.

than the other).⁹⁶ But if the dealer sells that four-cylinder vehicle at a lower price than the six-cylinder, fully-loaded model, the price difference merely reflects product differentiation: The more expensive car costs more to make and delivers a superior quality of service to the consumer.⁹⁷

Second, not all price discrimination is bad. Sometimes, price discrimination allows firms to increase their output by reaching more consumers.⁹⁸ The senior discount gets senior citizens to the theater who would not come at the regular price. By recovering a disproportionate share of its costs from early hardback book buyers, a publisher can offer the mass market paperback at a lower price than otherwise and therefore sell more total copies. Because of this, Herbert Hovenkamp notes that “most price discrimination is socially beneficial in that it produces higher output and thus yields greater consumer benefits than forced nondiscriminatory pricing.”⁹⁹ Moreover, price discrimination likely poses less of a problem in a competitive market, where consumers unsatisfied with a firm’s pricing structure are free to take their business elsewhere. At least in these markets, differential pricing strategies can be a form of differentiation and competition among firms, and the increased profits flowing from price discrimination can both entice new entrants and fund market innovations.

In the telecommunications context, § 202’s prohibition on unreasonable discrimination reflects both of these important observations. Section 202 states that:

It shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services for or in connection with like communication service, directly or indirectly, by any means or device, or to make or give any undue or unreasonable preference or advantage to any particular person, class of persons, or locality, or to subject any particular person, class of persons, or locality to any undue or unreasonable prejudice or disadvantage.¹⁰⁰

Courts and the Commission have historically subjected § 202 claims to a three-part inquiry.¹⁰¹ First, the plaintiff must show that the services in question are “like” services.¹⁰² Second, the plaintiff must show that the customers have been treated differently in the provision of the service (typically by being subjected to different prices).¹⁰³ If the plaintiff carries its burden on the first two steps, the

96. Edwards, *supra* note 92, at 563–64.

97. *Id.*

98. Boliek, *supra* note 32, at 1678; Edwards, *supra* note 92, at 586–91. See generally Gifford & Kudrle, *supra* note 92.

99. 14 HERBERT HOVENKAMP, ANTITRUST LAW 154 (quoted in Edwards, *supra* note 92, at 588); see also Meurer, *supra* note 93, at 98 (noting that the outcome is ambiguous).

100. 47 U.S.C. § 202 (2012).

101. See, e.g., Competitive Telecomms. Ass’n v. FCC, 998 F.2d 1058, 1061 (D.C. Cir. 1993); MCI Telecomms. Corp. v. FCC, 917 F.2d 30, 39 (D.C. Cir. 1990).

102. *Competitive Telecomms.*, 998 F.2d at 1061; *MCI Telecomms.*, 917 F.2d at 39.

103. *Competitive Telecomms.*, 998 F.2d at 1061; *MCI Telecomms.*, 917 F.2d at 39.

burden then shifts to the telecommunications provider to show that the price disparity is reasonable.¹⁰⁴

B. Apples and Oranges: Defining “Discrimination”

By its terms, § 202 encompasses a wide range of conduct. As one court has explained:

The prohibition against different charges to different customers for like services under like circumstances is flat and unqualified. The pertinent section of the statute bristles with ‘any’. It is made unlawful for ‘any’ carrier to make ‘any’ unjust discrimination by ‘any’ means, or to make ‘any’ undue preference to ‘any’ particular person, or to subject ‘any’ person to ‘any’ undue prejudice. . . . Equal prices for like services is in itself a matter of public interest.¹⁰⁵

But even this broad language highlights an important limitation on the scope of § 202. The Act does not prohibit all differences in price between consumers. Rather, it only prohibits discrimination among “like” services. This caveat is an important reminder that not all incidents of price differentiation constitute price discrimination. As the D.C. Circuit explained in *Competitive Telecommunications Ass’n v. FCC*, “[b]y its nature, § 202(a) is not concerned with the price differentials between qualitatively different services or service packages. In other words, as far as ‘unreasonable discrimination’ is concerned, an apple does not have to be priced the same as an orange.”¹⁰⁶

Likeness under § 202 turns upon whether the two services are “functionally equivalent,” meaning whether the services in question are “different in any material functional respect.”¹⁰⁷ At this stage, courts do not consider issues such as differences in cost or competitive necessity, which carriers can offer at step three to show any discrimination is reasonable.¹⁰⁸ Rather, the court or agency must “look to the nature of the services offered.”¹⁰⁹ Though not dispositive, “the perspective of the customer faced with differing services is often considered a significant factor.”¹¹⁰ “The test presumes that not all differences between services

104. See, e.g., *Competitive Telecomms.*, 998 F.2d at 1061; *MCI Telecomms.*, 917 F.2d at 39.

105. *Am. Trucking Ass’n v. FCC*, 377 F.2d 121, 130 (D.C. Cir. 1966).

106. *Competitive Telecomms.*, 998 F.2d at 1064; see also James B. Speta, *Supervising Discrimination: Reflections of the Interstate Commerce Act in the Broadband Debate*, 95 MARQ. L. REV. 1195, 1198 (2012).

107. *MCI Telecomms.*, 917 F.2d at 39 (quoting *Ad Hoc Telecomms. Users Comm. v. FCC*, 680 F.2d 790, 795 (D.C. Cir. 1982)); see also *Competitive Telecomms.*, 998 F.2d at 1061 (“Likeness, as we said, depends upon ‘functional equivalence.’” (quoting *Ad Hoc Telecomms. Users Comm.*, 680 F.2d at 795)).

108. *MCI Telecomms.*, 917 F.2d at 39.

109. *Id.*

110. *Ad Hoc Telecomms. Users Comm.*, 680 F.2d at 795 (quoting *Am. Broad. Cos. v. FCC*, 663 F.2d 133, 139 (D.C. Cir. 1980)).

make them *a priori* unlike. Rather, the differences must be . . . of practical significance to customers.”¹¹¹

Several cases help shed light on how the “functional equivalence” test is applied. For example, in *MCI Telecommunications Corp. v. FCC*, several small telecommunications carriers challenged AT&T’s policy of charging customers a discounted rate for bundling several telecommunications services together, rather than purchasing each service individually.¹¹² AT&T initially argued that the bundled package was different, in part because the larger volumes of bundled package consumers generated lower costs for the carrier and thus justified a price break.¹¹³ The court held that these potential cost differences failed to show the bundled offering was not functionally equivalent to the sum of its parts.¹¹⁴ In a related case, however, it accepted the argument that customers who purchased the bundle surrendered some flexibility as to how AT&T provides the service. Although the customers receive the same products in the end, the fact that AT&T has more flexibility in determining how to provision those services is sufficient to render the bundle not “functionally equivalent” to the sum of its parts if ordered individually.¹¹⁵

Similarly, the Commission permitted AT&T to charge a different rate for many “private line” services than for basic service over the public switched telephone network. At the risk of oversimplification, private line service allows a customer to use a portion of AT&T’s network capacity to keep a dedicated connection open at all times between two points of the customer’s choosing, which minimizes the risk of interruption or delay when communicating between offices. For example, Software Defined Network Service (“SDN”), which AT&T introduced in 1986, allowed a customer to maintain a private network between geographically remote offices, using space on the shared public switched telephone network.¹¹⁶ SDN customers could use the private network to call between points on the network using a separate numbering system or to place calls outside the private network using traditional telephone numbers.¹¹⁷ Opponents asserted that the service was essentially identical to traditional long-distance telephone service. But the Commission held that SDN was not functionally equivalent to traditional long-distance because (1) the SDN system required special equipment that limited its availability and required the customer to use different software and equipment than traditional telephone service, and (2) customers recognized that SDN service provided additional integrated functions

111. *Beehive Tel., Inc. v. Bell Operating Co.*, 12 FCC Rcd. 17,930, 17,963 (1997); *see also Competitive Telecomms. Ass’n*, 998 F.2d at 1061 (explaining court must “look to the nature of the services offered and ascertain whether customers view them as performing the same functions”).

112. *MCI Telecomms.*, 917 F.2d at 33, 39.

113. *Id.*

114. *Id.* at 39–40.

115. *Competitive Telecomms. Ass’n*, 998 F.2d at 1061.

116. *See AT&T Commc’ns Tariff* FCC Nos. 1, 9, and 10, 5 FCC Rcd. 298, 298 (1990).

117. *Id.*

such as e-mail and teleprocessing that traditional customers would have to purchase separately and receive over other networks.¹¹⁸

Finally, the Commission has allowed carriers to negotiate individual deals with customers at prices below tariff, as long as the same deal is then made available to any other customer interested in receiving the same service at the same price. “Although one normally regards contract relationships as highly individualized, contract rates can still be accommodated to the principle of nondiscrimination by requiring a carrier offering such rates to make them available to any customer willing and able to meet the contract’s terms.”¹¹⁹ Although the terms might depart from the tariff, if the same terms are then made available to all takers, there is no discrimination in price and therefore no violation of § 202.

C. Defining “Unreasonable”

Of course, if a plaintiff succeeds in showing that a carrier has charged different prices for like services, it does not necessarily follow that the carrier has violated § 202.¹²⁰ Because the statute only prohibits unreasonable discrimination, a carrier may prevail by showing that any discrimination is reasonable. To determine whether price discrimination is reasonable, the court must compare “‘the charges actually assessed under the two pricing schemes’ and the terms of each arrangement.”¹²¹ “It may declare the disparate charges lawful only if ‘there is a neutral, rational basis underlying [the disparity].’”¹²²

Cost differentials provide an obvious neutral, rational basis for a price disparity.¹²³ This rationale relates back to the economic definition of price discrimination: If it costs a carrier more to serve one customer than another, then it is not price discrimination to charge that customer a higher price.¹²⁴ Unsurprisingly, the Commission has repeatedly stated that “costs have played a predominant role in determining whether rates are just and reasonable under our statutory standards.”¹²⁵ During the era of telephone rate regulation, the

118. *Id.* at 301.

119. *Competitive Telecomms. Ass’n*, 998 F.2d at 1063–64 (quoting *Sea-Land Serv., Inc. v. Interstate Commerce Comm’n*, 738 F.2d 1311, 1317 (D.C. Cir. 1984)).

120. *Orloff v. FCC*, 352 F.3d 415, 420 (D.C. Cir. 2003) (“§ 202 prohibits only unjust and unreasonable discrimination in charges and service. Orloff is therefore not entitled to prevail merely by showing that she did not receive all the sales concessions Verizon gave to some other customers—that, in other words, Verizon engaged in discrimination. Verizon may still show that the difference in treatment was reasonable.”).

121. *MCI Telecomms. Corp. v. FCC*, 917 F.2d 30, 41 (D.C. Cir. 1990) (quoting *MCI Telecomms. Corp.*, 842 F.2d 1296, 1305 (D.C. Cir. 1988)).

122. *Id.* (quoting *Nat’l Ass’n of Reg. Util. Comm’rs v. FCC*, 737 F.2d 1095, 1133 (D.C. Cir. 1984) (alteration in original)).

123. *See, e.g., Ad Hoc Telecomms. Users Comm. v. FCC*, 680 F.2d 790, 797 n.15 (D.C. Cir. 1982); *Am. Broad. Cos. v. FCC*, 663 F.2d 133, 139 (D.C. Cir. 1980).

124. *See supra* text accompanying notes 91–97. Indeed, under the economic definition, it would constitute price discrimination to charge both consumers the same price in the face of differing costs of service. *See Ford & Spiwak, supra* note 92, at 2.

125. *AT&T (Telpak Rates)*, 61 F.C.C.2d 587, 609 (1976).

Commission regularly required telephone companies to justify their tariffed rates based primarily upon costs of service; a tariffed rate was considered per se reasonable under § 202. And this cost rationale remains present in the deregulatory era. For example, in *Connecticut Office of Consumer Counsel v. FCC*,¹²⁶ the court upheld a surcharge that AT&T imposed on Connecticut residents to recover the expense of a gross receipts tax that the state placed upon AT&T. The court agreed that the surcharge was discriminatory, in the sense that Connecticut residents paid more than other customers for the same long-distance service.¹²⁷ Nonetheless, it affirmed the Commission's determination that the surcharge was reasonable to prevent the bulk of the Connecticut tax from falling on out-of-state residents through rate averaging.¹²⁸

Courts and the Commission have also endorsed reasonable discrimination on the basis of "competitive necessity."¹²⁹ Loosely defined, this rationale suggests the need for additional pricing flexibility when a carrier faces a competitive threat. This doctrine arose during the transition period between monopoly and competition, when AT&T struggled to compete against innovative and less regulated new rivals. Originally, competitive necessity required a regulated carrier to show a likelihood that a customer would defect to a competitor without the benefit of price discrimination.¹³⁰ For example, the Commission permitted AT&T to offer volume-based discounts on certain private-line and special-access services if the discount "[met] competition and thereby promote[d] reasonable rates for all users."¹³¹

More recently, the D.C. Circuit in *Orloff v. FCC*¹³² struggled with the challenge of defining reasonable discrimination in an increasingly competitive industry. Orloff challenged the policy of Verizon Wireless to grant concessions to cell phone customers who "haggled" with representatives when renewing their cell phone contracts.¹³³ As a result of this haggling, these customers received service at a lower rate than customers who paid the advertised rates—a clear case of price discrimination.¹³⁴ But was this discrimination unreasonable in a competitive marketplace such as Cleveland, where Orloff resided?

Orloff demonstrates how competition and market power are integral to a determination of reasonableness. As the court explained, § 202 was originally

126. 915 F.2d 75 (2d Cir. 1990).

127. *Id.* at 78–79.

128. *Id.* at 79.

129. *See, e.g.,* *Ad Hoc Telecomms. Users Comm. v. FCC*, 680 F.2d 790, 797 n.15 (D.C. Cir. 1982); *Am. Broad. Cos. v. FCC*, 663 F.2d 133, 139 (D.C. Cir. 1980).

130. Notably, the Commission was reluctant to endorse this defense for carriers who faced little competition or who possessed market power in their service areas. *See* *Southwestern Bell Telephone Co.*, 13 FCC Rcd. 1718, 1719 (1997) ("The Commission has never held that this defense applies to dominant LECs.")

131. *Private Line Rate Structure and Volume Discount Practices*, 97 F.C.C.2d 923, 947 (1984).

132. 352 F.3d 415 (D.C. Cir. 2003).

133. *Id.* at 417.

134. *Id.* at 420.

drafted to govern unreasonable discrimination by a rate-regulated monopoly.¹³⁵ Regulated carriers filed their prices in tariffs required by Section 203, which were reviewed by the Commission for reasonableness. Typically, a carrier violated § 202 if it posted different tariffed rates for two like services, or if it charged a rate that deviated from the tariff, without making that rate available to all comers on a common carriage basis.¹³⁶ Of course, in a competitive marketplace, prices are dictated not by a regulator but by the market. Wireless providers, such as Verizon Wireless, are not only excused from the tariff requirement, they were forbidden by law from filing tariffs even if they wanted to.¹³⁷ For competition to shape market prices the way the Commission once disciplined tariffs, companies need freedom to depart from advertised rates in response to competitive pressure.¹³⁸ In a competitive world, price discrimination based on competitive necessity is the rule, not the exception, and helps consumers secure the benefits of competition.

As a result, *Orloff* held that in competitive markets, carriers have greater flexibility to adopt differentiated pricing strategies without running afoul of § 202.¹³⁹ In these markets, discrimination would not allow the carrier “the power to control its customers’ economic fates,” because dissatisfied customers can simply switch carriers.¹⁴⁰ The court was careful to note that its holding did not abrogate § 202 entirely. Even in competitive markets, carriers cannot “refuse to deal with any segment of the public whose business is the type usually accepted.”¹⁴¹ “Nor can they decline to serve any particular demographic group.”¹⁴² Either would constitute unreasonable discrimination. The Commission also emphasized that “what is reasonable in this market does not necessarily translate to other markets marked by less competition.”¹⁴³ In markets that are “inadequately competitive,” or that exhibit another “market failure” that limits consumers’ ability to “use market forces to protect themselves,” § 202 will regulate carrier actions more stringently.¹⁴⁴ But in competitive markets, discounting “allows consumers to get the full benefit of competition by playing competitors against each other.”¹⁴⁵ If a carrier adopts discounting as a marketing strategy, “[c]onsumers . . . can only benefit.”¹⁴⁶

Finally, courts and the Commission have endorsed several other uncontroversial rationales to justify discrimination by carriers. For example, discrimination is justified if the unequal treatment is required by law.¹⁴⁷

135. *Id.* at 417.

136. *Id.* at 419–21.

137. *Id.* at 421.

138. *Id.*

139. *Id.*

140. *Id.*

141. *Id.* at 420 (quoting *Orloff v. Vodafone Airtouch Licenses LLC*, 17 FCC Rcd. 8987, 8997 (2002)).

142. *Id.*

143. *Orloff v. Vodafone*, 17 FCC Rcd. at 8998.

144. *Id.* at 8997–98.

145. *Orloff v. FCC*, 352 F.3d at 421.

146. *Id.*

147. *Union Tel. Co. v. Qwest Corp.*, 495 F.3d 1187, 1196–97 (10th Cir. 2007).

Discrimination is also justifiable if it is technically impossible for the carrier not to discriminate.¹⁴⁸

III. APPLYING § 202 STANDARDS TO THE BROADBAND INDUSTRY

Because the Commission's net neutrality rules use the same phrase, "unreasonable discrimination," that Congress used in § 202, the statute provides a good starting point when defining the proper scope of the new regulation. Of course, administrative law would allow the Commission to define the same phrase differently for the broadband and telephone industries.¹⁴⁹ But one might expect the agency to acknowledge the differences and explain why it has departed from past precedent. In other contexts, the Supreme Court has held that when the same phrase is used in two parts of a statute, the phrase is presumed to carry the same meaning in both places.¹⁵⁰ More generally, the Administrative Procedure Act prohibits the Commission from departing from prior precedent without providing a "reasoned explanation for its action," which "would ordinarily demand that it display awareness that it is changing position" and explain why it was doing so.¹⁵¹ It may not "depart from a prior policy *sub silentio*."¹⁵²

Moreover, the similarities between the telephone and broadband industries suggest that § 202 provides a useful framework to determine how a nondiscrimination obligation should apply to broadband industries. The telephone industry was broadband's predecessor as the nation's premiere telecommunications network and exhibits many of the same characteristics that net neutrality proponents cite to justify a broadband nondiscrimination obligation. Both are marked by network effects, meaning that each new user added to the network increases the value of the network to every other user. And each serves as a platform for putting users in communication with one another, thus serving as a catalyst for innovation in adjacent markets.

Yet while the net neutrality rules borrow from both the language and the spirit of § 202, they sacrifice much of the nuance of the older rule and eschew the careful policy considerations contained in the caselaw interpreting the statute. While the new net neutrality rules remain largely undefined, the Commission has left no doubt that it intends its broadband nondiscrimination obligations to sweep

148. *Panatronic USA v. AT&T Corp.*, 287 F.3d 840, 844–45 (9th Cir. 2002).

149. *See, e.g.,* *Envtl. Def. v. Duke Energy Corp.*, 549 U.S. 561, 575–77 (2007).

150. *Id.*; *see also* *Atl. Cleaners & Dyers, Inc. v. United States*, 286 U.S. 427, 433 (1932). Of course, in those cases Congress wrote the words in both parts of the statute, which is one reason why consistency is presumed. Here, Congress wrote § 202 while the Commission wrote the net neutrality rule. But that distinction matters little given that, under the *Chevron* doctrine, the Commission is charged with defining vague statutory terms like "unreasonable discrimination." *See, e.g.,* *Universal Serv. Fund Tel. Billing Practices Litig.*, 300 F. Supp. 2d 1107, 1120 (D. Kan. 2003) (holding that *Chevron* deference is accorded to Commission interpretation of "unreasonable discrimination" under § 202). Therefore the Commission is charged with defining the term in both contexts.

151. *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 514–15 (2009); *see also* *Motor Vehicle Mfrs. Ass'n vs. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

152. *Fox Television*, 556 U.S. at 515.

more broadly than § 202. This section explores that observation by examining the most common allegedly discriminatory concerns leveled against broadband providers and examines how a nondiscrimination rule anchored in § 202 would address these concerns.¹⁵³

A. Blocking

Blocking remains a primary concern of the Commission and of net neutrality proponents. Commentators fear that broadband providers will simply close their networks to certain content and application providers, thus preventing those companies from using the broadband network to reach consumers. If wielded inappropriately, broadband providers could use blocking to disadvantage certain competitors in the upstream markets for various Internet services. Net neutrality proponents repeatedly cite the Commission's 2006 investigation into allegations of anticompetitive blocking by Madison River Communications to support the need for robust net neutrality regulations.¹⁵⁴

As discussed above, the Commission has responded with a strong and comprehensive anti-blocking rule. Fixed broadband providers may not "block lawful content, applications, services, or non-harmful devices, subject to reasonable network management."¹⁵⁵ The Commission explained that "content, application, [and] services" should be read broadly to include any lawful Internet traffic.¹⁵⁶ The no-blocking rule also prohibits broadband providers from charging an access fee to content and application providers: "To the extent that a content, application, or service provider could avoid being blocked only by paying a fee, charging such a fee would not be permissible under these rules."¹⁵⁷ Finally, the rule extends to device markets as well: Fixed broadband providers may not limit the types of equipment that its consumers use to reach the network unless the equipment is harmful to the network.¹⁵⁸ Mobile broadband providers are subject to a less stringent rule that only prohibits blocking of "lawful websites" or

153. This Article will not address the Commission's transparency rules, which are an important part of its reforms but lie beyond the scope of this discussion. Transparency is not a nondiscrimination obligation; rather, it is a requirement that whatever discriminatory practices the company adopts, it fully and fairly discloses these practices to its consumers. *See* Net Neutrality Rules, *supra* note 1, at 17,936. This requirement is uncontroversial. Even the most staunch deregulation proponents recognize the government's role in protecting access to accurate information. Transparency is an integral component of maintaining broadband competition: For consumers to choose among various broadband providers' offerings, they must be able to judge accurately what each provider is offering and how different services compare using metrics other than price alone.

154. *See supra* note 29 (discussing allegations that Madison River Communications blocked VoIP services over its broadband network because VoIP competed with company's traditional telephone service).

155. Net Neutrality Rules, *supra* note 1, at 17,942.

156. *Id.* at 17,942.

157. *Id.* at 17,943–44.

158. *Id.* at 17,943.

“applications that compete with the provider’s voice or video telephony services.”¹⁵⁹

The broadband industry generally found these rules uncontroversial, because providers typically have little incentive to block content or applications. As noted above, the value consumers place on broadband access depends largely upon how many services consumers can secure online, meaning that blocking content or applications undermines the broadband provider’s reputation and rates.¹⁶⁰ In their comments, several broadband providers indicated that their operations comported with the rule and that they are committed to continuing to do so.¹⁶¹ Others, such as the Federal Trade Commission, agree that consumer pressure will generally deter broadband providers from blocking: “[A]s long as consumers have one or more alternatives to which they can turn, it is difficult to imagine them accepting the blockage or elimination of content that is important to them.”¹⁶²

Like the net neutrality rules, a § 202-based nondiscrimination rule would also prohibit most blocking of Internet content, though much would depend on the reason for the blocking. A content or application provider subjected to blocking typically would have little difficulty showing discrimination: By allowing some websites to reach consumers but not others, the broadband provider would be denying “like service” to the blocked site. The burden would therefore shift to the broadband provider to demonstrate a “neutral, rational basis underlying the disparity.”¹⁶³ In the prototypical case of content-based blocking, where the broadband provider blocks content that is critical of the company or that promotes causes with which the company disagrees, a court is likely to find that the provider’s actions constitute a “refus[al] to deal with any segment of the public whose business is the type normally accepted.”¹⁶⁴ *Orloff* explained that this type of discrimination would be unreasonable even under the lax standards of a competitive marketplace.¹⁶⁵

Thomas Nachbar’s comprehensive analysis of common carriage law reaches a similar conclusion.¹⁶⁶ Nachbar notes that, historically, regulators have been much more willing to impose user-based discrimination than use-based discrimination. Although one is often a proxy for another (because a network operator may choose to block a particular content provider because its proposed use competes with the operator’s other revenue streams, for example), a user-based standard is much easier to administer because it does not require the regulator to

159. *Id.* at 17,959.

160. *See supra* text accompanying notes 29–30.

161. Net Neutrality Rules, *supra* note 1, at 17,942 & n.197.

162. FTC, STAFF REPORT, BROADBAND CONNECTIVITY COMPETITION POLICY 157 (2007), available at <http://www.ftc.gov/reports/broadband/v070000report.pdf>, quoted in Gary S. Becker et al., *Net Neutrality and Consumer Welfare*, 6 J. COMPETITION L. & ECON. 497, 502 (2010).

163. *MCI Telecomms. Corp. v. FCC*, 917 F.2d 30, 41 (D.C. Cir. 1990); *see supra* text accompanying note 122.

164. *Orloff v. FCC*, 352 F.3d 415, 420 (D.C. Cir. 2003).

165. *Id.*

166. *See* Nachbar, *supra* note 80, at 127–28.

involve itself with issues of product design to distinguish good from bad uses. The regulator may impose a user-based standard simply by requiring “that a network operator provide any service to others that it provides to itself or its affiliates on the same terms.”¹⁶⁷ In its simplest form, the no-blocking rule is a typical user-based discrimination standard: Broadband providers may not block one user from receiving a service that it provides to itself or other users.

But unlike the net neutrality rules, § 202 would in some circumstances permit a broadband provider to block content or application providers who fail to pay a generally applicable access charge to use the broadband network. This is a highly speculative scenario, as no broadband provider currently charges such a fee, none have plans to do so, and any such charge would likely spawn a backlash from customers unable to reach favored Internet content.¹⁶⁸ But if a company adopted a generally applicable charge to reach consumers on a basic level, § 202 would permit the company to block those content and application providers who refused to pay the charge. The blocking would not constitute discrimination, because the broadband provider is treating the blocked company just like other content providers—all would be subject to the same nondiscriminatory payment in exchange for access. It is also possible that a broadband provider might place an access charge only on unusually bandwidth-intensive applications. Although this would be a closer case, it is likely that such charges would also be permissible if the broadband provider could show the charges were based on the additional costs the application imposed on the network. In this case, the content provider would have no problem establishing discrimination. Certain providers are singled out to pay for a service that others received for free. But because the discrimination is based on the cost differential to serve surcharged companies, the discrimination would likely be reasonable.¹⁶⁹ Affected content providers may point out that the broadband provider is not assessing a smaller cost-based access charge on less-bandwidth-intensive network traffic. But this is unlikely to carry the day, as prices do not need to reflect cost differentials perfectly to be reasonable.

§ 202 would also likely prohibit blocking lawful network devices, at least when the broadband provider has market power. Long ago, the landmark decisions in *Hush-a-Phone* and *Carterfone* condemned AT&T’s practice of permitting customers to use only equipment supplied or approved by the telephone company.¹⁷⁰ The Commission expressly found that this requirement, which was a routine feature of AT&T’s tariffs before their invalidation, was unreasonably discriminatory under § 202 because it treated customers with AT&T equipment differently than customers with foreign equipment, without justification.¹⁷¹ AT&T could only ban devices that it could prove would be harmful to the network or if they failed to meet reasonable technical standards for interconnection.¹⁷² The net

167. *Id.*

168. *See* Net Neutrality Rules, *supra* note 1, 17,942 & n.197.

169. *See supra* text accompanying notes 123–28.

170. *See* Use of the Carterfone Device in Message Toll Tel. Serv., 13 F.C.C.2d 420, 423 (1968); *Hush-A-Phone Corp. v. United States*, 238 F.2d 266, 269 (D.C. Cir. 1956).

171. *Carterfone*, 13 F.C.C.2d at 425–26.

172. *Id.* at 424.

neutrality device rules mirror *Carterfone* and therefore have an effect similar to § 202.

B. Throttling

Throttling—the intentional delaying of targeted network traffic—is perhaps the most high-profile battleground so far in the net neutrality debate. It was, of course, Comcast’s decision to throttle bandwidth-intensive torrent traffic that incited the Commission to impose binding net neutrality obligations on the industry.¹⁷³ Comcast claimed that throttling was necessary during peak periods to manage network congestion and limit the impact that torrent users had on other users sharing neighborhood broadband lines.¹⁷⁴ The Commission disagreed, although its ruling stemmed at least in part from the deceptive way that the company hid its actions from consumers.¹⁷⁵

The net neutrality rules largely disfavor targeted throttling. The Commission explicitly bans broadband providers from “impairing or degrading particular content, applications, services, or non-harmful devices so as to render them effectively unusable,” because this degree of degradation would be functionally equivalent to blocking.¹⁷⁶ But it declined to “impose a blanket prohibition on degradation of traffic more generally,” because it recognized that some degradation is the “unavoidable” byproduct of network congestion, which is inevitable on even the most advanced networks.¹⁷⁷ The rules also prohibit broadband providers from degrading traffic to secure an advantage in an adjacent market or to limit speech with which the broadband provider disagrees.¹⁷⁸ While the Commission suggested that some throttling may be permissible in the interests of reasonable network management,¹⁷⁹ it strongly prefers “[u]se-agnostic

173. See *supra* text accompanying notes 53–57.

174. Formal Complaint of Free Press and Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13,028, 13,054 (2008).

175. *Id.* at 13,058–59 (“[T]he anticompetitive harm perpetuated by discriminatory network management practices is clearly compounded by failing to disclose such practices to consumers. Many consumers experiencing difficulty using only certain applications will not place blame on the broadband Internet access service provider, where it belongs, but rather on the applications themselves, thus further disadvantaging those applications in the marketplace. On the other hand, disclosure of network management practices to consumers in a manner that customers of ordinary intelligence would reasonably understand would enhance the ‘vibrant and competitive free market . . . for the Internet and interactive computer services’ by allowing consumers to compare and contrast competing providers’ practices.” (citations omitted)).

176. Net Neutrality Rules, *supra* note 1, 17,943. Like blocking, this ban on extreme degradation is subject to the reasonable network management safe harbor. *Id.* at 17,951–52.

177. *Id.* at 17,943.

178. *Id.* at 17,946.

179. *Id.* at 17,944.

discrimination” to alleviate network congestion.¹⁸⁰ This language suggests that the targeted throttling of particular bandwidth-intensive content or applications would not constitute reasonable network management and therefore would violate the rules.

By comparison, § 202 would probably permit at least some targeted throttling to alleviate network congestion. If a broadband provider were to throttle BitTorrent traffic, for example, torrent users would easily be able to show discrimination. By slowing down only torrent-related traffic, the provider would be treating torrent users differently than other consumers with the provision of like service. The burden would then shift to the broadband provider to demonstrate a “neutral, rational basis” for the disparity.¹⁸¹ In Comcast’s case, the company argued that throttling torrent traffic was necessary to alleviate the disproportionate effect that torrent users had on network congestion.¹⁸² Because torrent users typically engage in significant amounts of file-sharing among end users, they generally consume more bandwidth than traditional broadband customers: A “disproportionately large amount of the traffic currently on broadband networks originates from a relatively small number of users.”¹⁸³ When this traffic exceeds the capacity of a broadband network to deliver that traffic at normal speeds through a particular network bottleneck, all customers who depend on that bottleneck (torrent users and non-torrent users alike) will experience congestion. There is room under § 202 for a court to find it is “neutral” and “rational” for the broadband provider to throttle traffic related to those applications having a disproportionate effect on congestion, because such throttling would shield traditional users from degradation and delay caused by torrent applications.

But even under § 202, there are only limited conditions under which throttling might be permissible. First, the broadband provider should only throttle traffic during periods of actual network congestion—absent congestion, there is no reason to throttle bandwidth-intensive applications because they cause no harm to other users. The Commission rejected Comcast’s defense in part because the evidence showed the company did not “carefully tailor” its operations, instead throttling traffic during non-congested periods and in non-congested neighborhoods.¹⁸⁴ Second, whether throttling is an appropriate response to congestion turns in part upon the network architecture, which varies among broadband providers. Torrent traffic hurt Comcast users in part because Comcast is a “shared network.”¹⁸⁵ Users in a neighborhood share one high-capacity broadband line, meaning that one or two torrent users can claim a disproportionate share of

180. *Id.* at 17,955; *cf. id.* at 17,955 (suggesting congestion is best alleviated by throttling traffic of heavy end-users, rather than bandwidth-intensive applications).

181. *See* MCI Telecomm. Corp. v. FCC, 917 F.2d 30, 41 (D.C. Cir. 1990).

182. Formal Complaint of Free Press and Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13,028, 13,031–32 (2008).

183. *Id.* at 13,058 (quoting Comcast Corp. Comments).

184. *Id.* at 13,056.

185. *Id.* at 13,031–32.

the bandwidth available in the common pool.¹⁸⁶ On non-shared networks, such as Verizon's FiOS broadband service, which maintain dedicated high-speed lines to each individual user, the common pool problem is minimized and therefore throttling would be less justifiable. Finally, the Commission should not hesitate to demand evidence of a broadband provider's actual throttling practices and to balance the utility of alleviating network congestion against the potential downsides of throttling—for example, leveraging broadband market power to gain an unfair advantage in an upstream market for Internet content or applications.

C. Tiering and Quality of Service Guarantees

Tiering is the most glaring point of distinction between the net neutrality rules and a § 202 approach. "Tiering" refers to the ability of broadband providers to charge content and application providers a fee in exchange for a higher quality of service when those providers use the network to reach consumers.¹⁸⁷ As noted above,¹⁸⁸ most broadband networks are "best efforts" networks, meaning that the network routes all packets similarly based upon its best guess as to how to get the packet to its final destination, but without any guarantee regarding whether the packet will actually get there or how quickly.¹⁸⁹ A tiered model would allow content and application providers to pay a premium to the broadband provider in exchange for guaranteed delivery at or above a certain speed. The broadband provider would fulfill this guarantee largely by giving premium packets priority in event of network congestion, thus minimizing the risk that congestion will cause packet delay or packet loss for premium-tier transmissions.

The Commission has indicated that tiered service likely constitutes unreasonable discrimination under the net neutrality rules.¹⁹⁰ Pay-for-priority agreements would "raise significant cause for concern" because they would represent a departure from existing norms and could harm competition and innovation in adjacent markets for Internet content and applications.¹⁹¹ A tiered service model would allow certain content and application providers to secure a quality of service advantage over rivals on the basis of ability and willingness to pay, which could disadvantage start-up companies and noncommercial enterprises.¹⁹² Finally, a broadband provider that offers premium service for a fee would have incentives to reduce the quality of its "best efforts" delivery to induce content and application providers to instead pay for a quality of service guarantee.¹⁹³

186. See COMCAST CORPORATION DESCRIPTION OF PLANNED NETWORK MANAGEMENT PRACTICES TO BE DEPLOYED FOLLOWING THE TERMINATION OF CURRENT PRACTICES 1–2, http://downloads.comcast.net/docs/Attachment_B_Future_Practices.pdf (last visited Mar. 9, 2012).

187. Atkinson & Weiser, *supra* note 25, at 3–4.

188. See *supra* text accompanying note 25.

189. Atkinson & Weiser, *supra* note 25, at 3–4.

190. See Net Neutrality Rules, *supra* note 1, at 17,947–48.

191. *Id.*

192. *Id.*

193. See *id.*

By comparison, § 202 would permit a broadband provider to offer a tiered-service model, as long as premium tier service was generally available to all interested content and application providers at similar rates. If, for example, Netflix were to pay Verizon a fee to guarantee delivery of streaming video content at a minimum speed, rivals such as Hulu could not assert a claim under § 202 for unreasonable discrimination. This is because “best efforts” delivery and premium delivery are not “like services.” A “best efforts” customer receives no assurance regarding when, if ever, its packets will be delivered and has no protection against congestion-related delays. But the premium customer would know that its content would be largely unaffected by congestion and would receive a guarantee that its packets would reach their destinations within a particular time frame, presumably secured by some penalty in the event Verizon failed to fulfill its promise. Like traditional telephone service and private line service, “best efforts” delivery and guaranteed delivery are not “functionally equivalent” because they differ in ways that have practical significance to the customer. These different value propositions justify a difference in price and insulate the broadband provider from a claim of unreasonable discrimination. Under § 202, the carrier is permitted to enter into a special priority access agreement with a customer, as long as it makes the same terms available to all other customers willing to pay the premium.¹⁹⁴

Again, Nachbar’s distinction between user-based and use-based discrimination is useful. The ban on tiered service is a use-based discrimination rule. It prohibits the network operator from offering prioritization or guaranteed delivery to those content and application providers whose proposed uses would benefit from higher-level service. As Nachbar explains, use-based discrimination rules inevitably require the regulator to involve itself in design standards—as the Commission has by endorsing the best efforts network over other forms of content delivery.¹⁹⁵ Regulators have been reluctant to assume this duty, and for good reason. Through regulatory error or, more nefariously, regulatory capture, this interference can retard innovation in content and application markets. Regulatory processes are biased toward incumbent technologies, because regulators and commenters find it easier to discuss existing technologies than hypothetical future ones.¹⁹⁶ And the larger the government’s role in design standards, the greater the incentive is for affected companies to capture the regulatory process and subvert it toward their private ends.¹⁹⁷

Net neutrality proponents fear that because broadband networks create positive externalities, network owners may use tiered service in a “sad effort[] to capture some of the value of what their infrastructure inspires” in ways that harm the overall health of the network.¹⁹⁸ In other words, charges for priority delivery might represent nothing more than broadband providers’ attempts to share in the

194. *Sea-Land Serv., Inc. v. Interstate Commerce Comm’n*, 738 F.2d 1311, 1317 (D.C. Cir. 1984).

195. *See* Nachbar, *supra* note 80, at 129.

196. *Id.* at 129–30.

197. *Id.* at 129.

198. Wu, *supra* note 5, at 28.

profits of downstream content and application providers, in the process driving up the cost of doing business on the Internet and squeezing out companies that otherwise would flourish. Without question, broadband networks generate spillover effects that benefit society above and beyond the profit they bring the network owner.¹⁹⁹ But as Gregory Sidak and David Teece note, “[s]pillovers are common in competitive markets, and their mere existence does not establish the existence of market failure that warrants regulatory intervention.”²⁰⁰ In fact, they continue, these spillovers may drive greater innovation, not less: “Industries with significant spillovers generally experience more and faster innovation than industries with fewer spillovers.”²⁰¹

In the broadband context, the spillover argument ignores the fact that existing best efforts networks also impose negative externalities on certain content providers, namely congestion.²⁰² Far from reducing the overall value of the network, tiered service may enhance its value by making it more feasible for Internet content that is susceptible to congestion to be delivered efficiently to consumers. Moreover, it ignores the fact that many content and application providers already pay for quality-of-service improvements elsewhere in the Internet ecosystem. Content Delivery Networks (“CDNs”), such as Akamai Technologies and Level 3 Communications, act as middleman alternatives to the public Internet, storing a content provider’s information in multiple, dispersed locations and carrying that information for a fee over their own private networks to a point very close to the end-user consumer. Although the last leg of this journey, from the CDN to the consumer, is carried on the best efforts Internet, most of the journey takes place over the CDN’s private network, which increases the quality of the service. For companies like Netflix, whose product is susceptible to congestion, CDNs are an essential partner. Far from inhibiting innovation in content markets, these CDNs make services like Netflix possible. And because CDNs are not covered by the net neutrality rules, the net effect of the rule is to prevent broadband providers from competing against CDNs, hurting in particular smaller-scale content providers that need priority transport but lack the scale to afford CDN rates.²⁰³

Tiered service allows for the network operator to alleviate congestion through intelligent traffic management. The U.S. Postal Service, for example, offers first-class mail and a higher-priced priority delivery option as one way to separate time-sensitive packages from those less sensitive to delay.²⁰⁴ Priority mail customers have paid a premium to insulate their packages from delay. The customer is unlikely to pay the premium unless delay was somehow detrimental to

199. Brett M. Frischmann & Mark A. Lemley, *Spillovers*, 107 COLUM. L. REV. 257, 280 (2007).

200. J. Gregory Sidak & David J. Teece, *Innovation Spillovers and the “Dirt Road” Fallacy: The Intellectual Bankruptcy of Banning Optional Transactions for Enhanced Delivery Over the Internet*, 6 J. COMP. L. & ECON. 521, 530 (2010).

201. *Id.* at 549 (citing Frischmann & Lemley, *supra* note 199, at 268).

202. *Id.* at 557.

203. *Id.* at 529–30.

204. See Atkinson & Weiser, *supra* note 25, at 5, 7.

the customer. Thus, the premium signals to the post office that this customer's package should claim some of the limited space on the next available freight flight, while the less time-sensitive first-class package can afford to wait for a later flight or ground delivery.

In the same fashion, tiered delivery allows broadband providers to determine which packets should receive priority delivery in the event of network congestion. Assume, for example, that packets from the following four streams reach a network bottleneck simultaneously and must be queued: an e-mail being retrieved from a storage server, a webpage, part of a movie streaming to a Netflix customer, and part of a telemedicine application wherein a New York surgeon is guiding a rural Missouri doctor through a procedure in real-time. The broadband provider must decide in which order these packets get through; the only question is what rule the provider will use.

The broadband provider could simply choose randomly among the four packets, but this solution is suboptimal because the four applications have varying sensitivities to delay. A fraction of a second may be an imperceptible delay to the e-mail and webpage recipients, but can cause the video stream and the telemedicine application to skip, resulting in a lower-quality experience for the Netflix customer and even greater risks to the Missouri surgeon and his patient. The net neutrality rules endorse a use-agnostic rule whereby the broadband provider would prioritize packets sent to those users who have used the network the least during some preceding period of time.²⁰⁵ But this rule could have the perverse effect of assuring that the Netflix and telemedicine applications are delayed, if (as is likely) the Netflix customer and the Missouri hospital are heavier-bandwidth consumers than the e-mail and webpage recipients. Alternatively, if the Commission had permitted it, the broadband provider could develop its own taxonomy to prioritize all possible Internet content and applications on the basis of sensitivity to delay. But this approach would be expensive and likely incomplete, given the millions of services available online. And it would give enormous power to broadband providers to shape the flow of information in cyberspace. It would also require broadband providers to engage in deep packet inspection to classify each packet on the system, which is undesirable for privacy reasons (just as we do not want the postal service to read our mail to decide how best to route it).

Alternatively, the broadband provider could rely on the pricing mechanism to determine how to allocate its bandwidth, just as our economy uses prices to allocate most other scarce resources in society. If priority delivery was available for a fee, the broadband provider would not need to rely on its own judgment to determine which applications are most sensitive to delay. It could rely instead on the application providers' own judgments. Netflix and the telemedicine application provider would recognize that congestion-related delay could harm the quality of their product. Therefore, to protect their value proposition to their consumers, they may elect to pay for priority delivery and minimize the risk of such delays. By comparison, the e-mail and web page servers would recognize

205. Net Neutrality Rules, *supra* note 1, at 17,945–46.

their products are not sensitive to delay and therefore would not pay the premium. Therefore, the price mechanism allows the broadband provider to utilize the local knowledge each application provider has regarding its sensitivity to delay, and to route packets in an efficient fashion.²⁰⁶ Tiered service has not yet developed in the broadband market, partly because congestion is the exception rather than the rule and CDNs are currently filling that market need. But our appetite for more and better Internet applications is ever-growing. If growth in the demand for online goods and services exceeds growth in the quantity and speed by which technology enables those services to be delivered to consumers, congestion could become a larger problem. As Atkinson and Weiser noted, best-effort networks may inhibit the deployment of next-generation applications that require high speed and low latency to meet consumer expectations.²⁰⁷ The availability of quality-of-service guarantees could help boost innovation in the content and application market by allowing developers more freedom to create new applications that a best efforts architecture could not support. A § 202-based approach would permit this innovation in the broadband market and promote additional innovation in upstream products.

D. Individual Contracts and Exclusivity Agreements

A thornier question is presented by individual contracts or exclusivity agreements, wherein the broadband provider provides priority delivery to one content or application provider but not to its competitors. For example, after contracting to provide priority delivery to Netflix, Comcast may decide not to extend a similar offer to Hulu. This could be either because it simply chooses not to do so or because Netflix has bargained for a clause in its service agreement precluding Comcast from offering similar terms to its competitors. Such agreements are almost certainly impermissible under the net neutrality rules. Because such agreements would distort competition in the market for Internet content or applications, the Commission is likely to find them to be unreasonably discriminatory against the disadvantaged entities.

The treatment of such an agreement under § 202 is more complicated. The failure to offer tiering on similar terms to similarly situated customers would constitute discrimination under § 202. In the above example, Hulu is denied the opportunity to purchase priority access on the terms offered to Netflix (or indeed, on any terms) and thus is being subjected to different treatment in the provision of like service. Moreover, in many cases this agreement would be unreasonable as well. Under the rule announced in *Sea-Land Service*,²⁰⁸ a common carrier could depart from its tariff and negotiate a special customer-specific rate only if it then

206. See generally Becker et al., *supra* note 162.

207. Atkinson & Weiser, *supra* note 25, at 4.

208. *Sea-Land Service, Inc. v. Interstate Commerce Comm'n*, 738 F.2d 1311, 1317 (D.C. Cir. 1984). This landmark case involved the interpretation of the unreasonable discrimination provision of the Interstate Commerce Act, upon which the Communications Act was modeled. It has since been extended to govern § 202 inquiries as well. See, e.g., *MCI Telecomms. Corp. v. FCC*, 917 F.2d 30, 37–38 (D.C. Cir. 1990).

filed the contract as a tariff and made the same terms to similarly-situated customers.²⁰⁹

But as *Orloff* noted, the *Sea-Land Service* rule, and the tariff regime that it served, were designed to prevent so-called “dominant” carriers from using discrimination to “control [their] customers’ economic fates.”²¹⁰ By comparison, the Commission has repeatedly stated that “carriers lacking market power are presumptively unable to engage in unreasonable discrimination.”²¹¹ Therefore in an area where Comcast lacks market power, this exclusivity agreement more closely resembles a concession resulting from marketplace negotiations with Netflix, which is reasonable under *Orloff*. The arrangement would not threaten competition because Hulu is free to strike a similar agreement with another broadband provider. And Comcast customers who seek high-quality service from Hulu or other Netflix competitors could punish Comcast by switching broadband providers.

By prohibiting exclusivity agreements in competitive markets, the Commission has failed to appreciate the value of alliances between providers in related markets and the innovation it can bring to the network provider’s marketplace. One need look no further than the 2007 AT&T-iPhone agreement to see how transformative these agreements can be.²¹² The agreement, under which Apple agreed to make its new iPhone available exclusively to AT&T subscribers for three years, helped boost AT&T in a highly competitive wireless marketplace by giving the company a technological edge over its rivals. Shortly thereafter, Verizon partnered with Motorola to offer the Droid phone, jumpstarting a sleepy smartphone market and leading to fierce competition in the wireless device market. At the same time, the evolution of smartphones drove changes in wireless carriers as well. Voice-based service plans with small text and data bundles gave way to data-centric service plans, through which consumers are finally beginning to experience the oft-promised wireless broadband alternative to traditional telephone and cable-based broadband service.

The same rule should govern a broadband provider’s attempts to prioritize its own traffic over those of third parties with which it competes. If the broadband provider has market power in the broadband market, then prioritization of its own traffic or that of a favored partner effectively wields that market power to gain an undue advantage in an adjacent market. In this circumstance, the Commission

209. *Sea-Land Service*, 738 F.2d at 1317; see *MCI Telecomms. Corp.*, 917 F.2d at 37–38 (D.C. Cir. 1990); *In re Panamsat Corp. v. Comsat Corp.*, 12 FCC Rcd. 6952, 6965–66 (1997); *In re Competition in the Interstate Interexchange Marketplace*, 10 FCC Rcd. 4562, 4566 (1995).

210. 352 F.3d 415, 421 (D.C. Cir. 2003).

211. *Competition in the Interstate Interexchange Marketplace*, 10 FCC Rcd. 4562, 4567 (1995); see also *id.* at 4567 n.26.

212. See Michael T. Hoeker, *From Carterfone to the iPhone: Consumer Choice in the Wireless Telecommunications Marketplace*, 17 COMM.LAW CONSPECTUS 187, 197–98 (2008); David Cline, Note, *Consumer Choice: Is There an App for That?* 10 J. ON TELECOMM. & HIGH TECH. L. 147, 154 (2012).

should prohibit such prioritization if the result is anticompetitive or harmful to consumers. But absent market power, the broadband provider should be free to explore the benefits of synergy between broadband transport and adjacent markets for related services. This synergy could benefit consumers by providing a more integrated service than is available elsewhere, and consumers disappointed by the offering can avoid potential problems by simply switching broadband providers.

IV. THE RELATIONSHIP BETWEEN NONDISCRIMINATION AND COMPETITION

The differences between the net neutrality rules and a § 202-based approach highlight an issue that the Commission only briefly addresses: the relationship between nondiscrimination and competition. In the telephone context, the Commission has struggled for decades to define the effect that increased competition should have on a carrier's nondiscrimination obligations. Yet the net neutrality rules only briefly and indirectly address this accumulated wisdom. The Commission's failure to apply this historical lesson represents a missed opportunity and goes far to explain why the net neutrality rules reach further than § 202 and shows the dangers inherent in that overreach.

In the context of economic regulation, nondiscrimination law is at its peak when regulating companies that abuse market power in ways that harm consumers.²¹³ § 202, for example, was adopted to control the Bell system, which had a monopoly over most of the nation's telephone service from the 1920s until its breakup in 1984. During this period, regulators tolerated Bell's dominant position because they considered telephone service a natural monopoly that was best provided by one company. But Congress also imposed nondiscrimination obligations, along with rate regulation and tariffing obligations, to prevent Bell from abusing its monopoly power in ways that would harm consumers.²¹⁴

As portions of the telecommunications industry became more competitive, the Commission realized that strict adherence to tariffs and undifferentiated pricing inhibited innovation and competition. New carriers seeking to make inroads against Bell needed to be nimble, flexible, and able to serve niche markets whose needs were not met by the market leader. For such carriers, tariffing was an expensive and time-consuming proposition that inhibited

213. As several scholars have noted, the historic origins of nondiscrimination obligations on common carriers reaches much further. During the populist era, the Interstate Commerce Act and its regulatory cousins (including the Communications Act) imposed rate regulation, tariffing, and nondiscrimination obligations on several industries "affected by the public interest," some of which were monopolies but others of which were more competitive. *See supra* text accompanying notes 76–81. In the telecommunications industry, however, nondiscrimination obligations originated with Congress's endorsement of the Bell monopoly and only relaxed in the early 1970s in response to competition, as chronicled below.

214. *Cf. Ting v. AT&T*, 319 F.3d 1126, 1145 (9th Cir. 2003) ("Thus, in contrast to 1934, when Congress enacted §§ 201(b) and 202(a) to protect customers for whom AT&T was the only option, the FCC now defers to the market unless the market is seriously flawed or not competitive.").

their ability to respond quickly to market opportunities, while adherence to a strict nondiscrimination requirement prevented them from meeting the unique needs of niche markets.

Ultimately, the Commission concluded, “based upon the well-established teachings of modern welfare economics that a firm without market power does not have the ability or incentive to price its services unreasonably [or] to discriminate among customers unjustly.”²¹⁵ In the wireline context, the Commission fought for almost two decades to detariff nondominant carriers, so they had more flexibility to challenge AT&T, the market leader.²¹⁶ As the wireless market emerged with no player clearly wielding market power, the Commission opted for a detariffed environment in which competition would dictate pricing and service options. A wireless carrier’s success, the Commission explained, “should be driven by technological innovation, service quality, competition-based pricing decisions, and responsiveness to consumer needs—and not by strategies in the regulatory arena.”²¹⁷ Both initiatives recognized that some discriminatory pricing can be beneficial by expanding the firm’s total output, meeting the needs of niche consumers, and putting competitive pressure on other carriers.²¹⁸ Any harmful discrimination will be punished through customer defection. For nondominant carriers, the market plays a significant role in policing unreasonable discrimination, and the regulator steps in only infrequently to enforce basic norms of fairness.

Given these lessons from history, the FCC should tread lightly when imposing net neutrality obligations on broadband providers. The Commission has repeatedly found that the market for broadband service is competitive, with 82% of Americans having a choice of at least two providers for broadband service, usually the telephone company and the cable company.²¹⁹ And that competitiveness will increase as wireless broadband service matures as a viable third alternative. Moreover, there have been few instances of Commission actions to punish broadband providers for discriminatory behavior.²²⁰ By recognizing the role of competition to discipline market behavior, the Commission can better tailor its net neutrality rules to focus on the real danger posed by discrimination—the abuse of market power in a way that hurts consumers.

The Commission has tacitly recognized this point when justifying its differential treatment of the mobile broadband industry. While recognizing that “[t]here is one Internet” and that “[c]onsumer choice, freedom of expression, end-

215. *In re* Policy and Rules Concerning Rates for Competitive Common Carrier Servs. and Facilities Authorizations Therefor, 85 F.C.C.2d 1, 20–21 (1980).

216. *See* Kearney & Merrill, *supra* note 80, at 1337–39 (summarizing history).

217. *In re* Implementation of Sections 3(n) and 332 of the Commc’ns Act, Regulatory Treatment of Mobile Servs., 9 FCC Rcd. 1411, 1420 (1994).

218. *See supra* text accompanying notes 98–99.

219. FCC, NATIONAL BROADBAND PLAN 37 (2010), *available at* <http://download.broadband.gov/plan/national-broadband-plan-chapter-4-broadband-competition-and-innovation-policy.pdf>.

220. *See supra* text accompanying note 16.

user control, competition, and the freedom to innovate without permission are as important when end users are accessing the Internet via mobile broadband as via fixed,²²¹ the Commission nonetheless adopted a much less stringent net neutrality rule for mobile broadband. Specifically, mobile broadband providers are only forbidden from blocking (1) lawful websites and (2) applications that compete against the provider's voice or video telephone services,²²² and more importantly, they are not subject to the Commission's prohibition on unreasonable discrimination.²²³ The Commission explained that mobile broadband is "rapidly evolving" and that a stringent nondiscrimination rule might inhibit the "evolution of new business models."²²⁴ Moreover, the mobile broadband market is highly competitive, which helps mitigate the risk of harmful discrimination.²²⁵ Finally, mobile broadband networks face greater capacity challenges than their wireline counterparts, which may require providers to exercise more flexibility and intelligent traffic management than the rules generally permit.²²⁶

The Commission's narrower mobile broadband rules more closely resemble a § 202-based nondiscrimination rule. The Commission should recognize that the same factors should govern fixed broadband as well. There are many benefits of a more nuanced rule that sanctions only discrimination in the provision of "functionally equivalent" services and grants more flexibility to firms that lack market power. As noted above, this rule would allow broadband providers to use the pricing mechanism to engage in intelligent traffic management, resolving congestion by routing packets according to their sensitivity to delay, as exhibited by their providers' willingness to pay for priority delivery.²²⁷ It would also allow providers to engage in discrimination that does not pose a threat to consumers or competition.

In response, one might argue that market pressure is often insufficient to punish bad behavior, even by actors that lack market power. This critique is implicit in the Commission's net neutrality order, and has been made more explicitly by many net neutrality proponents. For example, Rob Frieden notes that consumers may incur substantial switching costs, which limits their ability to change broadband providers at will.²²⁸ These switching costs include the time spent researching competitors, negotiating with customer service representatives,

221. Net Neutrality Rules, *supra* note 1, at 17,956; *see also id.* (confirming "the importance of freedom and openness for mobile broadband networks").

222. *Id.* at 17,961.

223. *Id.* at 17,962.

224. *Id.* at 17,956–57.

225. *See id.* at 17,957.

226. *Id.*

227. *See supra* text accompanying notes 204–06. This is not to suggest that end-users should not be offered a premium service that would ensure priority delivery of the content they request from the Internet, if such a service is technically feasible. The two offerings are mutually compatible.

228. Rob Frieden, *Assessing the Merits of Network Neutrality Obligations at Low, Medium, and High Network Layers*, 115 PENN ST. L. REV. 49, 78 (2010).

and waiting for an installation technician.²²⁹ But the primary switching cost is the long-term service contract, which ties a consumer to a provider for a year or more, with a substantial penalty for early termination. Of course, the greater the switching cost, the more discrimination a customer is willing to tolerate before taking the bold step of changing providers. But in the last few years, each major nationwide broadband provider has introduced a no-term contract option for consumers.²³⁰ For customers choosing this option, switching costs have fallen dramatically, which increases the competitiveness of the broadband industry in most areas.

Frieden and others also note that competition is hampered by the fact that in most areas customers have few options to choose from. The power to switch providers loses some force if there are few other options to choose from. While the Commission has noted that 82% of American census tracts have two or more competitive options for broadband wireline service, 78% have only two options (typically the telephone company and the cable company).²³¹ Moreover, the Commission notes that it lacks granulated data on price and performance to determine if two providers compete head-to-head throughout the area.²³² Susan Crawford notes that most cable broadband providers recently upgraded their networks to DOCSIS 3.0, which is capable of much higher speeds than fiber-to-the-node or DSL technology that most telephone companies use.²³³ Except in places where Verizon offers its FiOS all-fiber-optic broadband service, cable-based broadband far outpaces telephone-based broadband, and therefore competition between the two is skewed. Startup costs remain a significant barrier to entry in the fixed broadband market. And while wireless broadband use is growing substantially, even 4G networks are not yet capable of being perfect substitutes for fixed broadband service.²³⁴

One may ask whether the net neutrality rules may in fact exacerbate this problem. The Commission repeatedly justified its net neutrality rules by appealing to the need to maximize innovation in markets for Internet content and applications. But as Christopher Yoo has noted, this comes at the cost of innovation in the broadband market, because fixed providers are prohibited from

229. If the customer has a triple-play bundle, it may also include the costs of changing telephone and cable service, such as familiarizing one's self with new equipment and memorizing a different channel lineup.

230. These providers include Comcast, Verizon, Time Warner, and AT&T, among others. *See, e.g.*, Press Release, AT&T, Two Years, One Price, No Term Contract: AT&T Introduces New Broadband Plans with Guaranteed Monthly Rate (Aug. 20, 2008), available at <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26024>.

231. *See* FCC, *supra* note 14, at 37.

232. *Id.*

233. Susan P. Crawford, *The Looming Cable Monopoly*, 29 YALE L. & POL'Y REV. INTER ALIA 34, 35–36 (2010).

234. *Id.* at 36–37.

experimenting with new models for delivery of Internet traffic.²³⁵ This prevents entrepreneurs from entering the broadband market with new and innovative business models that might help lower entry costs. One sees this type of innovation in the 2005 deal struck between Clearwire and Bell Canada.²³⁶ Clearwire sought to create a nationwide network of next-generation mobile broadband service throughout the United States and elsewhere. To expand quickly, Clearwire arranged to receive a \$100 million capital infusion from Bell Canada, Canada's dominant telephone provider. In exchange, Bell Canada received a significant equity stake in the company, and Clearwire agreed to use Bell Canada as its exclusive provider for VoIP and certain other Internet Protocol-enabled services in the United States for a limited period.²³⁷ In essence, Clearwire's non-neutral business model unlocked the funding it needed to enter the market and compete against incumbent wireless providers.²³⁸ Although Clearwire's model has since evolved and Bell Canada no longer receives preferential treatment over its network,²³⁹ the anecdote illustrates the role that non-neutral business models can play to promote innovation and competition in the broadband market.

Of course, these alternatives have yet to rise in significant numbers, meaning that at least until wireless technology matures, most Americans have only two choices for broadband service. The question then becomes whether the telephone and cable companies are more likely to compete or coordinate with one another. Alfred Kahn, the late dean of regulated utilities law, has explained that "[t]here is no consensus among economists about the likely sufficiency of competition under duopoly."²⁴⁰ In the broadband industry, one can see evidence of vigorous competition for customers. The biggest players spend large sums each

235. 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, 61 (2004) ("[A]llowing last-mile broadband providers to differentiate their product offerings can help prevent declining-cost industries from devolving into natural monopolies.").

236. See News Release, Bell Canada Enterprises, Bell Canada and Clearwire Corporation Form Alliance (March 8, 2005), available at <http://www.bce.ca/news-and-media/releases/show/bell-canada-and-clearwire-corporation-form-alliance>.

237. See *id.*; see also News Release, Bell Canada Enterprises, Bell Canada Enterprises Reports First Quarter Results (May 4, 2005), available at <http://www.bce.ca/news-and-media/releases/show/bell-canada-enterprises-reports-first-quarter-results-2>.

238. See Bill D. Herman, *Opening Bottlenecks: On Behalf of Mandated Network Neutrality*, 59 FED. COMM. L.J. 103, 135–36 (2006); GRAHAM LONGFORD, "NETWORK NEUTRALITY" VS "NETWORK DIVERSITY": A SURVEY OF THE DEBATE, POLICY LANDSCAPE AND IMPLICATIONS FOR BROADBAND AS AN ESSENTIAL SERVICE FOR ONTARIANS 21–22, available at http://www.openmedia.ca/sites/openmedia.ca/files/longford_paper2.pdf (last visited Nov. 9, 2012).

239. See Tricia Duryee, *Bell Canada Picks LTE for 4G Despite Investments in WiMax and Clearwire*, PAIDCONTENT (Oct. 11, 2008, 5:16 AM), <http://paidcontent.org/tech/419-bell-canada-picks-lte-for-4g-despite-investments-in-wimax-and-clearwire/>.

240. ALFRED E. KAHN, FTC WORKSHOP ON BROADBAND CONNECTIVITY COMPETITION POLICY 2 (2007), available at <http://www.ftc.gov/opp/workshops/broadband/presentations/kahn.pdf>.

year advertising their broadband services, often directly comparing their services to that of their rivals. As noted above, when AT&T introduced a no-term service contract in 2008, touting it as service “without the hassle of a term commitment like those of cable companies,” most of the industry followed suit.²⁴¹ And the cable industry was under no regulatory obligation to roll out DOCSIS 3.0, but did so to improve broadband speed and gain a competitive advantage over rivals. On the other hand, Verizon’s decision to halt FiOS buildouts and Verizon Wireless’s deal with SpectrumCo (in which Verizon Wireless and cable operators agreed to cross-promote one another’s services as part of Verizon Wireless’s \$3.6 billion purchase of valuable cable-owned spectrum)²⁴² suggest the two can also cooperate when it serves their mutual interests to do so.

This uncertainty suggests it is unwise to adopt a broad *ex ante* prohibition on unreasonable discrimination, because it is unclear whether regulatory intervention is helpful or harmful to consumers. The net neutrality rules assume without evidence that broadband markets are inherently anticompetitive and that regulation is preferable to private control of networks. But competition may be sufficient to discipline bad behavior, even in a duopoly structure. And the regulatory process is susceptible to capture. “[T]he same economic characteristics that allow private actors to dominate markets also allow them to dominate politics as well.”²⁴³ A better approach would apply the nondiscrimination rule more cautiously, sanctioning only those providers with market power, and whose actions have actually harmed consumers. Otherwise, as Nachbar notes, overregulation risks distorting the content and application markets to an even greater degree than underregulation:

If one network operator engages in use-based discrimination to the detriment of a developing technology, the proponents of the technology at least have a chance of finding another form of carriage. But if a new technology requires a form of carriage that has been regulatorily excluded from the design of modern communications networks—such as the level-of-service guarantees that some potential Internet applications require—it will have zero chance of ever developing.²⁴⁴

As Nachbar’s observation suggests, a more nuanced rule would focus on the true harm posed by economic discrimination: the abuse of market power in a

241. Press Release, AT&T, Two Years, One Price, No Term Contract: AT&T Introduces New Broadband Plans with Guaranteed Monthly Rate (Aug. 20, 2008), available at <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26024>; see *supra* text accompanying note 230.

242. Press Release, Verizon Wireless, Comcast, Time Warner Cable, and Bright House Networks Sell Advanced Wireless Spectrum to Verizon Wireless for \$3.6 Billion (Dec. 2, 2011), available at <http://news.verizonwireless.com/news/2011/12/pr2011-12-02.html>.

243. Peter Decherney et al., *Are Those Who Ignore History Doomed to Repeat It?* 78 U. CHI. L. REV. 1627, 1680 (2011).

244. Thomas B. Nachbar, *The Public Network*, 17 COMM.LAW CONSPECTUS 67, 129–30 (2008).

way that harms consumers. The core concern animating net neutrality debates is the risk of a broadband provider eliminating a consumer's access to content or applications for selfish reasons, leaving the consumer with no recourse to get the services that it desires online. A § 202-based approach would still permit the regulator to intervene in these situations, if the consumer lacks the ability to remedy the problem by switching providers. But unlike the existing regime, it would also respect the roles played by competition and antitrust law as backstops to help police firm behavior.²⁴⁵ A balanced net neutrality rule would not eschew antitrust law, but would embrace it as an assistant in the fight to curb anticompetitive behavior and would internalize the lesson that antitrust regulators have learned—that not all differentiation is discrimination, and that some discrimination is beneficial, or even integral, for a competitive market to function.²⁴⁶

Because vertical contractual agreements have such ambiguous effects on consumer welfare, antitrust law adopts a case-by-case rule of reason analysis to determine whether a particular agreement should be barred.²⁴⁷ This approach already bars much of the conduct that net neutrality advocates most fear—anticompetitive foreclosure.²⁴⁸ But unlike the Commission's per se rule, it leaves room for procompetitive vertical agreements, which would increase the overall value of the network.²⁴⁹ Critics correctly note that antitrust enforcement is often costly, time-consuming, and unpredictable.²⁵⁰ But it has also been responsible for some of the telecommunications industry's greatest successes, including the Kingsbury Agreement and the 1984 Consent Decree that broke up the Bell monopoly and accelerated the race toward a competitive telecommunications industry. It is noteworthy that both the Federal Trade Commission and the Department of Justice, the branches of government responsible for enforcing the antitrust laws, have questioned the need for net neutrality rules and explained that “antitrust is up to the task of protecting consumers from vertical contracts that threaten competition.”²⁵¹

245. See generally Boliek, *supra* note 32.

246. See Orloff v. FCC, 352 F.3d 415, 421 (D.C. Cir. 2003).

247. Thomas W. Hazlett & Joshua D. Wright, *The Law and Economics of Network Neutrality*, 45 IND. L. REV. 767, 798 (2012).

248. *Id.* at 771 (citing *Cont'l T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 5051 (1977)).

249. *Id.* at 798–99.

250. See, e.g., Wu, *supra* note 5, at 24.

251. Hazlett & Wright, *supra* note 247, at 803 (citing Deborah Platt Majoras, Chairman, FCC, Luncheon Address at The Progress & Freedom Foundation's Aspen Summit (Aug. 21, 2006); accord FTC, BROADBAND CONNECTIVITY COMPETITION POLICY 11 (2007), available at <http://www.ftc.gov/reports/broadband/v070000report.pdf>; see also *In re Economic Issues in Broadband Competition a National Broadband Plan for Our Future*, 2010 WL 45550 (Jan. 4, 2010) (*Ex parte* Submission of Dep't of Justice)).

CONCLUSION

The jurisdictional issue continues to lurk as the elephant in the room of the net neutrality debate. As noted above, many broadband providers have sued to block the net neutrality rules and that case is pending in the D.C. Circuit Court of Appeals. If, as many commentators expect, the court invalidates the rules for failure to overcome the jurisdictional issues that were dispositive in *Comcast*, then the Commission will have no choice but to reclassify broadband service under Title II to proceed with its net neutrality project. Reclassification would highlight the gulf between the net neutrality rules and a § 202 approach, because the agency would be relying on § 202 to impose a nondiscrimination obligation on broadband providers.

Of course, as noted above, administrative law permits the agency to establish different nondiscrimination rules for the broadband and telephone industries. And this remains true regardless of whether the Commission is applying § 202 to broadband or imposing a more amorphous nondiscrimination rule using its Title I authority. But the Commission should explain why it is departing from past precedent in the application of its per se rule. To date, the Commission has not reconciled the breadth of its broadband nondiscrimination rules with the accumulated history of nondiscrimination law developed under § 202.

Moreover, given the increasingly competitive nature of much of the broadband industry, any reasoned explanation should concede that § 202 should be the ceiling, not the floor, for a broadband nondiscrimination obligation. Telephone companies have always been permitted to engage in intelligent traffic management because of the recognition that users are not uniform and network capacity is a limited resource that must be divided somehow to fill users' needs efficiently.²⁵² And in competitive telephone markets, the Commission has long recognized that some discrimination can benefit consumers by promoting innovation and competition. Broadband providers should be permitted the same flexibility, at least in the absence of a showing of market power and consumer harm. Denying broadband providers this flexibility, by invoking the traditional language of common carriage while redefining the duties that language carries, is both unwise policy and an incorrect interpretation of the history of common carriage.

252. *Cf. Speta, supra* note 106, at 1201 (noting that § 202 was one part of a larger scheme regulating the telephone industry, in which regulators sometimes compelled price discrimination but had sufficient regulatory control to assure the provider a reasonable rate of return).