

TITLE II IN REGULATORY AND ECONOMIC CONTEXT: WHY THE FCC'S RECENT “NET NEUTRALITY” MOVES WILL HARM, NOT HELP, AMERICA’S INTERNET FUTURE

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Introduction

The Internet is important. Therefore, the government must regulate it.¹ This is the argument put forth by the net neutrality movement,² whose proponents have persistently lobbied the FCC to impose categorical limitations on broadband providers’ business practices. Net neutrality advocates fear broadband providers’ theoretical ability to act as gatekeepers³ between their customers and edge providers,⁴ favoring some of these providers’ content – or their own – over others’. To that end, net neutrality advocates promote policies

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¹ See, e.g., *Communicators with Michael Powell*, C-SPAN (Dec. 18, 2015), <https://www.c-span.org/video/?401727-1/communicators-michael-powell> (6:44-7:15) (“Look, I think what’s happened unfortunately and a lot of lazy thinking is common carriage or utility regulation is the same thing as saying something’s important and indispensable. It’s really important to me, so why wouldn’t it be a utility?”).

² Tim Wu, *Net Neutrality: Is Antitrust Law More Effective than Regulation in Protecting Consumers and Innovation?: Hearing Before the House Subcommittee on Regulatory Reform, Commercial and Antitrust Law*, 113th Cong. 70-71 (2014), available at: https://judiciary.house.gov/wp-content/uploads/2016/02/113-111_88377.pdf [hereinafter *NN House Antitrust Hearing*].

³ Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. TELECOMM. & HIGH TECH. L. 141, 148-49 (2003) (“[T]he operator is ultimately the gatekeeper of quality of service for a given user, because only the broadband operator is in a position to offer service guarantees that extend to the end-user’s computer (or network).”); *Net Neutrality in the US: Now What?*, VI HART (Mar. 7, 2014), <http://vihart.com/net-neutrality-in-the-us-now-what/>.

⁴ Companies on the “edge” of the Internet, directly opposite consumers, who send data to and receive data from retail broadband customers via the Internet. Edge providers include entertainment companies like Netflix, blogs and news websites, as well as social media providers. See *In re Preserving the Open Internet*, 25 F.C.C.R. 17905 ¶ 4 n.2 (2010) [hereinafter *2010 Order*].

limiting broadband providers' ability to block, throttle, or prioritize certain content traveling along their networks.⁵

The FCC tried to impose these and similar regulations on the broadband industry.⁶ The courts largely struck down these attempts, finding that such attempts exceeded the FCC's statutory authority as argued.⁷ Lately, though, the FCC's luck has changed.⁸ When the D.C. Circuit Court of Appeals recently upheld the FCC's reclassification of residential and mobile broadband services, it upheld the FCC's ability to regulate broadband providers under Title II of the Telecommunications Act.⁹ Net neutrality advocates hailed the ruling as a "victory for the people of the Internet over special interests,"¹⁰ ensuring "the internet [sic] remains a platform for unparalleled innovation, free expression, and economic growth."¹¹ Opponents, meanwhile, vowed to appeal the ruling,¹² fearing Title II regulation will stifle innovation and investment in American broadband. Legal experts believe that a successful

⁵ See *In re Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling and Order, FCC 15-24, GN Docket No. 14-28, ¶¶ 15-18 (Feb. 26, 2015), available at: https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A1.pdf [hereinafter *2015 Order*]; Tim Wu, *NN House Antitrust Hearing* at 80.

⁶ See generally *2010 Order*; *In re Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, 20 F.C.C.R. 14,986 (2005) [hereinafter *2005 Policy Statement*].

⁷ See generally *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014); *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

⁸ See *U.S. Telecomm. Ass'n v. FCC*, No. 15-1063 at 8, 115 (D.C. Cir. June 14, 2016), available at: [https://www.cadc.uscourts.gov/internet/opinions.nsf/3F95E49183E6F8AF85257FD200505A3A/\\$file/15-1063-1619173.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/3F95E49183E6F8AF85257FD200505A3A/$file/15-1063-1619173.pdf).

⁹ See 47 U.S.C. §§ 153(51) and (53), 201-276.

¹⁰ Kit Walsh, *Net Neutrality Rules Upheld: Go Team Internet!*, ELECTRONIC FRONTIER FOUNDATION: DEEPLINKS BLOG (June 14, 2016), <https://www.eff.org/deeplinks/2016/06/net-neutrality-rules-upheld-go-team-internet>.

¹¹ Tom Wheeler, *Statement of FCC Chairman Tom Wheeler Regarding DC Circuit Decision to Uphold FCC's Open Internet Rules* (June 14, 2016), available at: <https://www.fcc.gov/document/chairman-wheeler-statement-open-internet-court-decision>.

¹² Andrew M. Harris and Todd Shields, *Slow Walk to High Court Best Tactic for Net Neutrality Foes*, BLOOMBERG POLITICS (June 14, 2016, 3:45 PM), <http://www.bloomberg.com/politics/articles/2016-06-14/slow-walk-to-high-court-is-best-strategy-for-net-neutrality-foes>.

appeal is unlikely,¹³ leaving congressional action as FCC opponents' likely last resort for immediate regulatory reform.¹⁴

Historically, the FCC's longtime stance was that the best way to encourage broadband deployment was to apply a regulatory “light touch” that promoted competition and innovation.¹⁵ Indeed, in the absence of heavy-handed government regulation, American broadband demonstrated explosive growth,¹⁶ benefitting industry and consumers alike.¹⁷ Unfortunately, the FCC's recent efforts change this trajectory. By adopting a regulatory framework largely designed to police monopoly railroad and telephone

¹³ *Id.* Note, however, that on July 29, 2016, industry trade groups filed multiple separate petitions with the D.C. Circuit Court of Appeals seeking en banc review. See Colin Gibbs, *CTIA Files to Appeal Open Internet Ruling*, FIERCEWIRELESS (July 29, 2016), <http://www.fiercewireless.com/story/ctia-files-appeal-open-internet-ruling/2016-07-29>; No. 15-1063 *Joint Petition USTelecom and CenturyLink for Hearing En Banc*, USTELECOM (July 29, 2016), <https://www.ustelecom.org/news/filings/doc-no-15-1063-joint-petition-ustelecom-and-centurylink-hearing-en-banc>; *Why We Filed for En Banc Review*, NCTA: PLATFORM (July 29, 2016), <https://www.ncta.com/platform/public-policy/why-we-filed-for-en-banc-review/>.

¹⁴ See, e.g., David McCabe, *Senate Panel Approves Net Neutrality Exemption Bill for Small Providers*, THE HILL (June 15, 2016, 10:53AM), <http://thehill.com/policy/technology/283567-senate-panel-approves-exemption-bill-for-part-of-net-neutrality-rules>; Mario Trujillo, *House Passes Bill Barring FCC from Regulating Internet Rates*, THE HILL (April 15, 2016, 11:27AM), <http://thehill.com/policy/technology/276454-house-passes-bill-barring-fcc-from-regulating-internet-rates>.

¹⁵ See generally 47 U.S.C. § 230(a)(4) (“The Internet and other interactive computer services have flourished, to the benefit of all Americans, with a *minimum of government regulation*.”) (emphasis added); 47 U.S.C. § 230(b)(2) (“It is the policy of the United States— to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, *unfettered by Federal or State regulation*) (emphasis added); 47 U.S.C. § 1302(a) (“The Commission . . . shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing . . . measures that *promote competition* in the local telecommunications market, or other regulating methods that *remove barriers to infrastructure investment*.”) (emphasis added); *In re Inquiry Concerning High-Speed Access to Internet Over Cable and Other Facilities*, 17 F.C.C.R. 4798 (2002) [hereinafter *2002 Cable Modem Deregulation*]; *Re Second Computer Inquiry*, 77 F.C.C.2d 384 (1980) [hereinafter *Computer II*].

¹⁶ For example, 87% of Americans now use the Internet, compared to 14% in 1995. *Internet Use Over Time*, PEW RESEARCH CENTER, <http://www.pewinternet.org/data-trend/internet-use/internet-use-over-time/>.

¹⁷ The American communications sector was responsible for more than 19% of economic growth between 1997 and 2002, and more than 9% of economic growth between 2002 and 2007. See Harold Furchtgott-Roth & J. Li, *The Contribution of the Information, Communications, and Technology Sector to the Growth of U.S. Economy: 1997-2007*, HUDSON INSTITUTE (August 2014).

networks,¹⁸ the FCC is putting the future of American broadband in peril. The Commission’s categorical bans on broadband providers’ business practices will ultimately raise the cost of Internet service,¹⁹ prevent broadband providers from crafting innovative services for low-income²⁰ and high priority²¹ customers, and strain future broadband innovation²² and investment²³ by creating an environment of regulatory uncertainty. Moreover, under its current regulatory regime, the FCC fails to recognize that the expanding market for broadband providers is increasingly, not decreasingly competitive,²⁴ and that edge providers can act as gatekeepers too.²⁵ In the end, the FCC’s recent regulatory moves will harm, not help, America’s Internet future.

I. The FCC’s Light Touch: *Computer I* through *Brand X*

When Congress wrote the original Communications Act in 1934, it hardly could have imagined, let alone regulated, the Internet. Understandably, then, when early computer networks arose in the middle of the twentieth century, the FCC struggled to classify them under its existing regulatory regime. The FCC’s First Computer Inquiry, otherwise known as *Computer I*, was its first attempt at doing so. Finding the market for

¹⁸ See 47 U.S.C. §§ 271-76; *In re Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, 84 F.C.C.2d 445, 462 (1981) (“[Legislative] history reveals a perception of an industry characterized by ‘natural monopoly’ where new entry was not contemplated.”); Rosemary C. Harold, *Cable Open Access: Exorcising the Ghosts of “Legacy” Regulation*, 28 N. KY. L. REV. 721, 729-31 (2001).

¹⁹ See *infra* section IV-A.

²⁰ See *infra* section IV-B-1.

²¹ See *infra* section IV-B-2.

²² See *infra* section IV-C-1.

²³ See *infra* section IV-C-2.

²⁴ See *infra* section IV-D.

²⁵ That is, the Internet is a multisided market. With sufficient market power and incentives, either a broadband provider or an edge provider may theoretically act as a gatekeeper between a customer and her desired edge content. See *infra* section IV-E.

“data processing” over computer networks highly competitive,²⁶ the FCC opted largely to refrain from regulation of these services²⁷ in order to ensure continued industry investment and growth. The FCC established a regulatory boundary between these newer data processing services and traditional “message-switching” common carriers,²⁸ whereby the former would be largely unregulated and the latter would retain its existing Title II regulatory burden. In the instances of “hybrid services” wherein a service offered elements of both data processing and traditional message-switching, the service would be regulated depending upon “the primary thrust of the service offered.”²⁹

Over time, however, this regulatory structure broke down due to the “confluence of communications and data processing” services offered by carriers.³⁰ Consequently, the FCC took another bite at the apple with its *Computer II* proceedings. The result of this effort was another regulatory separation, this time between “basic services” and “enhanced services.”³¹ Basic services were defined as “the common carrier offering of transmission capacity for the movement of information,”³² such as a traditional telephone service.³³ Enhanced services,

²⁶ See *In re Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities*, Tentative Decision, 28 F.C.C.2d 291 at ¶¶ 20-22, 24 (1970) [hereinafter *Computer I Tentative Decision*] (“In view of all of the foregoing evidence of an effective competitive situation, we see *no need to assert regulatory authority* over data processing services whether or not such services employ communications facilities in order to link the terminals of the subscribers to centralized computers. We believe the market for these services will continue to *burgeon and flourish best in the existing competitive environment.*”) (emphasis added).

²⁷ See *id.* at ¶¶ 28-29.

²⁸ *In re Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities*, Final Decision and Order, 28 F.C.C.2d 267 at 287 (1971) [hereinafter *Computer I Final Order*].

²⁹ *Id.*; *Computer I Tentative Decision* at ¶¶ 39-42.

³⁰ See *Computer II* at ¶ 2.

³¹ *Id.* at ¶ 5.

³² *Id.*

³³ Jason Oxman, *The FCC and the Unregulation of the Internet* (FCC Counsel for Advanced Communications and Office of Plans and Policy, Working Paper No. 31, 1999) at 10, <https://www.fcc.gov/reports-research/working-papers/fcc-and-unregulation-internet>.

by contrast, were services available via common carrier transmission facilities whereby the service provider computationally processed the contents of a customer's communications during the course of transmission.³⁴ The key difference in this definitional dichotomy, similar to that of the *Computer I* era, was in the regulatory burden placed on each of the services. The FCC continued to regulate basic services under Title II, while leaving enhanced services largely unregulated.³⁵ Similar to its conclusions in the *Computer I* era, the FCC found this deregulatory approach the best way to ensure continued growth and innovation in the still-nascent computer networking industry.³⁶

Yet another regulated-unregulated dichotomy was crafted in 1996 when Congress passed and then-President Bill Clinton signed into law the landmark Telecommunications Act of 1996.³⁷ The main goal of this legislation was to deregulate the American telecommunications industry,³⁸ with much of the debate focused on the issue of media cross-ownership.³⁹ Perhaps the Act's most significant contribution to modern communications

³⁴ 47 C.F.R. § 64.702(a) ("For the purpose of this subpart, the term enhanced service shall refer to services, offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information."); *Computer II* at ¶ 5.

³⁵ 47 C.F.R. § 64.702(a) ("Enhanced services are not regulated under title II of the Act."); *Computer II* at ¶ 7.

³⁶ *Computer II* at ¶¶ 7, 100, 116-18 ("For computer vendors and entrepreneurs *the momentum is away from basic communications services, rather than toward it. As a result, the types of enhanced services they may provide is limited only by their entrepreneurial ingenuity and competitive market constraints. Services need not be artificially structured or limited so as to avoid transgressing a regulatory boundary.*") (emphasis added).

³⁷ See Telecommunications Act of 1996, S. 652, 104th Cong. (1996) (enacted).

³⁸ S. REP. NO. 104-23, at 1 (1995) ("The purposes of the bill are to revise the Communications Act of 1934 (the 1934 Act) to provide for a *pro-competitive, de-regulatory national policy framework* designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by *opening all telecommunications markets to competition*, and for other purposes.") (emphasis added).

³⁹ See *id.* at 12, 35, 61-62; *Presidential Statement on Signing the Telecommunications Act of 1996*, 32 WEEKLY COMP. PRES. DOC. 218 (Feb. 8, 1996) ("In the world of the mass media, this Act seeks to remove unnecessary regulation and open the way for freer markets. I support that philosophy. At the same time, however, my Administration has opposed measures that would allow undue concentration in the mass media. I am very

policy, though, was its definitional component.⁴⁰ For the first time, Congress statutorily defined “telecommunications,”⁴¹ “telecommunications carrier,”⁴² “telecommunications service,”⁴³ and enhanced service’s spiritual successor,⁴⁴ “information service.”⁴⁵ Under this framework, federal statute treated telecommunications carriers as common carriers subject to Title II regulation.⁴⁶ Information services, meanwhile, lacked any statutory burden of Title II common carriage regulation.⁴⁷

In 2002, the FCC utilized this statutory framework when it opted to classify cable broadband service as an information service.⁴⁸ In doing so, the FCC continued to recognize the important role of a regulatory light touch in fostering innovation and competition in the advanced communications market.⁴⁹ Opponents challenged the classification, but the Supreme Court ultimately upheld⁵⁰ the FCC’s efforts via *Chevron* administrative deference.⁵¹

pleased that this Act retains reasonable limits on the ability of one company or individual to own television, radio, and newspaper properties in local markets and retains national ownership limits on television stations.”).

⁴⁰ See generally 47 U.S.C. § 153.

⁴¹ 47 U.S.C. § 153(50) (original version at 47 U.S.C. § 153(43) (1996)).

⁴² 47 U.S.C. § 153(51) (original version at 47 U.S.C. § 153(44) (1996)).

⁴³ 47 U.S.C. § 153(53) (original version at 47 U.S.C. § 153(46) (1996)).

⁴⁴ S. REP. NO. 104-23, at 16 (1995).

⁴⁵ 47 U.S.C. § 153(24) (original version at 47 U.S.C. § 153(20) (1996)) (“The term ‘information service’ means the offering of a capability for generating, acquiring, storing, *transforming*, *processing*, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing . . .”) (emphasis added).

⁴⁶ Insofar as telecommunications carriers provide telecommunications services. 47 U.S.C. § 153 (51)

⁴⁷ See 47 U.S.C. § 153(24).

⁴⁸ See *2002 Cable Modem Deregulation* at ¶¶ 7, 38. The FCC later classified DSL as an information service in 2005, following the *Brand X* decision. See Marguerite Reardon, *FCC Changes DSL Classification*, CNET (Dec. 11, 2005, 3:02PM), <http://www.cnet.com/news/fcc-changes-dsl-classification/>.

⁴⁹ *2002 Cable Modem Deregulation* at ¶¶ 4-5. (“[W]e seek to *remove regulatory uncertainty* that in itself may discourage investment and innovation. And we consider how best to *limit unnecessary and unduly burdensome regulatory costs.*”) (emphasis added).

⁵⁰ See *National Cable & Telecomm. Ass’n v. Brand X Internet Services*, 545 U.S. 967, 974 (2005).

The Court, largely adopting the FCC’s own reasoning,⁵² found that the proper classification of cable broadband depended upon customers’ perception of the service.⁵³ Ultimately, the Court found the FCC’s conclusion – that customers perceived broadband access as an integrated, single service containing elements of both transmission and computation – to be a reasonable conclusion pursuant to the FCC’s statutorily-granted authority.⁵⁴

II. Net Neutrality Emerges: Tim Wu, Michael Powell, and the FCC's Regulatory Creep

As seen above, the FCC repeatedly revised its regulatory regime throughout its various attempts to classify and regulate what would eventually become broadband Internet providers. While its usage of specific statutory and regulatory language may have varied over the years, the FCC was nevertheless steadfast in its belief that the best way to promote growth and innovation in the burgeoning broadband industry was through the application of a regulatory light touch.

In the mid-2000s, however, this deregulatory mindset began to change. Broadband Internet connections became the norm, not the exception.⁵⁵ Consequently, a new thinking

⁵¹ See *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 843-44 (1984) (“If Congress has explicitly left a gap for the agency to fill, there is an express delegation of authority to the agency to elucidate a specific provision of the statute by regulation. Such legislative regulations are given controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute. Sometimes the legislative delegation to an agency on a particular question is implicit rather than explicit. In such a case, a court may not substitute its own construction of a statutory provision for a reasonable interpretation made by the administrator of an agency.”).

⁵² *2002 Cable Modem Deregulation* at ¶ 38 (“Consistent with the analysis in the *Universal Service Report*, we conclude that the classification of cable modem service *turns on the nature of the functions that the end user is offered* As currently provisioned, cable modem service is a single, integrated service that enables the subscriber to utilize Internet access service through a cable provider’s facilities and to realize the benefits of a comprehensive service offering.”) (emphasis added).

⁵³ That is, the “offering” of the broadband provider. See Brand X, *supra* note 50 at 969, 976, 988-92.

⁵⁴ See Brand X, *supra* note 50 at 974; *Chevron*, *supra* note 51 at 843-44.

⁵⁵ As of 2005, there were over 42 million broadband subscribers in the United States. 33% of adult Americans subscribed to broadband services, compared to just 28% still subscribed to dial-up. This gulf continued to increase over time. See *OECD Broadband Statistics, June 2005*, OECD: BROADBAND AND TELECOM (October

emerged, wherein the FCC viewed broadband providers as potentially wielding market power sufficient to manipulate and distort an increasingly important means of communication and commerce. On the academic front, perhaps the most touted of these thinkers was Tim Wu, a net neutrality folk hero who authored what net neutrality advocates consider the foundational document of their movement.⁵⁶ In his journal article “Network Neutrality, Broadband Discrimination,” Wu began to lay the foundation for what would become the net neutrality movement’s gatekeeper argument.⁵⁷ Concerned about broadband providers’ potential ability to discriminate between different forms of content sent over their networks, Wu proposed a general concept of “network neutrality,” wherein “networks should be neutral as among applications.”⁵⁸ At the time, Wu and others were troubled by broadband providers’ categorical prohibitions on certain types of user activities, such as the use of a VPN or home networking.⁵⁹

Perhaps the biggest step toward FCC regulation of the Internet, though, resulted from a speech then-FCC Chairman Michael Powell delivered in 2004 at the University of Colorado School of Law.⁶⁰ Recognizing the Internet as an increasingly important means of communication and commerce,⁶¹ Powell laid out what he considered four fundamental

20, 2005), <http://www.oecd.org/sti/broadband/oecdbroadbandstatisticsjune2005.htm>; *Broadband vs. Dial-up Adoption Over Time*, PEW RESEARCH CENTER, <http://www.pewinternet.org/data-trend/internet-use/connection-type/>.

⁵⁶ See Tim Wu, *supra* note 3.

⁵⁷ *Id.* at 148-49.

⁵⁸ *Id.* at 145, 166-67.

⁵⁹ *Id.* at 156-58.

⁶⁰ Michael K. Powell, Chairman, Federal Communications Commission, Preserving Internet Freedom: Guiding Principles for the Industry, Remarks at the Silicon Flatirons Symposium (Feb. 8, 2004), https://apps.fcc.gov/edocs_public/attachmatch/DOC-243556A1.pdf.

⁶¹ *Id.*

“Internet Freedoms” for broadband customers.⁶² Crucially, Powell did not believe that the FCC should enforce these “freedoms” via regulation.⁶³ Instead, he reasoned that industry self-enforcement would be in broadband providers’ self-interest⁶⁴ and that the FCC should avoid “intrusive regulation” of the Internet⁶⁵ to ensure continued industry growth.

Yet, one year later, the FCC co-opted, with modifications,⁶⁶ Powell’s “freedoms” in its 2005 Policy Statement, wherein it asserted broad ancillary authority under Title I of the Telecommunications Act⁶⁷ to “ensure that providers of telecommunications for Internet access of Internet Protocol-enabled (IP-enabled) services are operated in a neutral manner.”⁶⁸ To that end, the FCC proposed that consumers had the right to 1) “access . . . lawful Internet content of their choice,” 2) “run applications and use services of their choice, subject to the needs of law enforcement,” 3) “connect their choice of legal devices that do not harm the network,” and 4) “competition among network providers, application and

⁶² 1) “Consumers should have access to their choice of legal content,” 2) “consumers should be able to run applications of their choice,” 3) “consumers should be permitted to attach any devices they choose to the connection in their homes,” and 4) “consumers should receive meaningful information regarding their service plans.”

⁶³ *Id.* at 3-4, 6.

⁶⁴ *Id.* at 3 (“These general conditions suggest that many, if not most, in the industry recognize that providing such access and information is in their own self-interest, particularly as infrastructure providers and developers struggle to discover valuable uses that will enable them to recoup their substantial investments in high-speed Internet technologies.”).

⁶⁵ *Id.* at 4, 6 (Based on what we currently know, the *case for government imposed regulations* regarding the use or provision of broadband content, applications and devices is *unconvincing and speculative* Such interference should be undertaken only where there is weighty and extensive evidence of abuse [I]f we secure a reasonable balance between the needs of network providers and internet freedom, consumers will reap the benefits of broadband without intrusive regulation, while preserving industry’s incentives to deploy more high-speed broadband platforms.”) (emphasis added).

⁶⁶ Powell’s second “freedom” was modified to include a law enforcement exception. The third “freedom” was modified with a harm exception. Powell’s fourth “freedom” was replaced entirely. *See id.* at 5; *2005 Policy Statement* at ¶ 4.

⁶⁷ *See* 47 U.S.C. §§ 151-61; *Brand X*, *supra* note 50 at 975-76 (“[T]he Commission has jurisdiction to impose additional regulatory obligations under its Title I ancillary jurisdiction to regulate interstate and foreign communications.”); *2005 Policy Statement* at ¶ 4.

⁶⁸ *2005 Policy Statement* at ¶¶ 4-5.

service providers, and content providers.”⁶⁹ The FCC explicitly characterized these four proposals as merely a statement of policy, rather than an official declaration of federal rulemaking authority; moreover, the proposals gave tremendous discretion to broadband providers regarding network management. Consequently, the proposals generated scant industry criticism or rebuke at the time of their release.⁷⁰

The enforceability of these proposals, however, came under intense scrutiny when in 2008 the FCC attempted to block Comcast from interfering with peer-to-peer application use on its networks.⁷¹ One year earlier, the Associated Press discovered widespread throttling of peer-to-peer customer data traveling over Comcast’s network,⁷² something the FCC later deemed to be beyond the reasonable network management exception contained within its 2005 Policy Statement.⁷³ In the end, against the advice of dissenting commissioners,⁷⁴ the FCC forged ahead in its attempts to prohibit Comcast’s interference with peer-to-peer activity, asserting broad ancillary authority to do so under various sections of the original Communications Act of 1934, as well as sections of the 1996 Act.⁷⁵

⁶⁹ *Id.* at ¶ 4.

⁷⁰ *Id.* at ¶ 5 n. 15. (“[W]e are not adopting rules in this policy statement. The principles we adopt are subject to reasonable network management.”). Nevertheless, in 2005, as a result of public statements made conflicting with concepts of network neutrality, AT&T was pressured into agreeing to abide by “net neutrality” standards for two years following its acquisition of BellSouth. See Patricia O’Connell, *Online Extra: At SBC, It’s All About “Scale and Scope,”* BLOOMBERG (Nov. 7, 2005), <http://www.bloomberg.com/news/articles/2005-11-06/online-extra-at-sbc-its-all-about-scale-and-scope>; Grant Gross, *Net Neutrality Advocates Cheer AT&T Concessions*, INFOWORLD (Dec. 29, 2006), <http://www.infoworld.com/article/2659636/security/net-neutrality-advocates-cheer-at-t-concessions.html>.

⁷¹ See *In re Formal Complaint of Free Press & Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications*, 23 F.C.C.R. 13,028 (2008) [hereinafter *2008 Comcast Order*].

⁷² Peter Svensson, *Comcast Blocks Some Internet Traffic*, THE ASSOCIATED PRESS (Oct. 19, 2007, 6:32pm), <http://www.washingtonpost.com/wp-dyn/content/article/2007/10/19/AR2007101900842.html>.

⁷³ *2008 Comcast Order* at ¶ 1; *2005 Policy Statement* at ¶ 5 n. 15.

⁷⁴ See, e.g., *Dissenting Statement of Commissioner Robert M. McDowell* at 13089-90.

⁷⁵ See 47 U.S.C. §§ 151 et seq.; *2008 Comcast Order* at ¶ 14-22.

Unsurprisingly, Comcast challenged the FCC’s Order in federal court.⁷⁶ In the end, the court sided with Comcast.⁷⁷ Distilling the FCC’s argument down to an assertion of ancillary authority pursuant to Section 4(i) of the 1934 Communications Act,⁷⁸ the court found this assertion of authority unrelated to “statutorily mandated responsibility,”⁷⁹ and thus unlawful.⁸⁰

Still undeterred by defeat, the FCC issued a new Order in December 2010,⁸¹ continuing what would become its long march toward Internet regulation. Adopting the broadband-provider-as-gatekeeper argument,⁸² the FCC crafted three new rules “impos[ing] disclosure, anti-blocking, and anti-discrimination requirements on broadband providers.”⁸³ However, rather than conduct a thorough economic analysis regarding these concerns,⁸⁴ the FCC cited theoretical threats of vertical foreclosure of edge providers offering VoIP or video streaming services that compete with broadband providers’ own offerings.⁸⁵ It also highlighted a handful of historical instances of net neutrality violations.⁸⁶ Ultimately, the

⁷⁶ See generally *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

⁷⁷ *Id.* at 661.

⁷⁸ 47 U.S.C. § 154(i); *Comcast*, 600 F.3d at 644.

⁷⁹ *Comcast*, 600 F.3d at 654 (“[P]olicy statements alone cannot provide the basis for the Commission’s exercise of ancillary authority.”).

⁸⁰ *Id.* at 661 (citing *American Library Ass’n v. FCC*, 406 F.3d 689, 692 (D.C. Cir. 2005)).

⁸¹ See generally *2010 Order*.

⁸² See *id.* at ¶¶ 3, 13-15, 21-24.

⁸³ See *Verizon*, *supra* note 7 at 628; *2010 Order* at ¶¶ 1, 53-79.

⁸⁴ See *2010 Order* at ¶¶ 22 n. 49, 32 n. 87. The closest the FCC came to a cost-benefit analysis was its unsubstantiated assertion that the “virtuous circle of innovation” resulting from the “Internet’s openness” more than outweighs any concerns of “significant [regulatory] compliance costs.” See also *2010 Order* at ¶¶ 14, 38-39.

⁸⁵ *Id.* at ¶¶ 21-22.

⁸⁶ *Id.* at ¶¶ 35-36. Note that these previous infractions were resolved under existing law enacted prior to the 2010 Order. See *Dissenting Statement of Commissioner Robert McDowell* at 151.

FCC concluded that the existence of customer switching costs,⁸⁷ regardless of market power, justified FCC prohibition of such potential activity that a competitive marketplace would otherwise weed out. Abandoning its previous ancillary authority justification, the FCC sourced its authority for the 2010 Order in Section 706 of the 1996 Telecommunications Act.⁸⁸

Just like the FCC's previous effort, opponents challenged this newfound attempt at broadband regulation in the D.C. Circuit Court of Appeals.⁸⁹ The court ultimately upheld the Order's transparency provision, but vacated the anti-blocking and anti-discrimination rules.⁹⁰ While finding the FCC did have the authority to promote investment in broadband pursuant to Section 706 via *Chevron* deference,⁹¹ the court concluded that the FCC's anti-blocking and anti-discrimination proposals were effectively common carrier regulations.⁹² Moreover, because broadband service was still classified as an information service,⁹³ the FCC was forbidden from subjecting broadband providers to telecommunications-style common carriage restrictions. Consequently, the court vacated the anti-blocking and anti-discrimination rules.⁹⁴

⁸⁷ 2010 Order at ¶¶ 27, 34.

⁸⁸ See 47 U.S.C. § 1302(a), (b); 2010 Order at ¶¶ 115-120.

⁸⁹ See generally *Verizon*, *supra* note 7.

⁹⁰ *Id.* at 659.

⁹¹ *Id.* at 636-40.

⁹² *Id.* at 655-56.

⁹³ See generally *Brand X*, *supra* note 50.

⁹⁴ *Verizon*, *supra* note 7 at 659.

III. Here Comes Title II: President Obama, the 2015 Order, and Privacy Regulations

One might think that following two back-to-back defeats, the FCC would end its quest to regulate broadband providers. It did not. This is largely due to the specific holding in *Verizon v. FCC*, in which the D.C. Circuit Court of Appeals recognized the FCC's asserted authority under Section 706 of the 1996 Telecommunications Act,⁹⁵ yet ultimately thwarted the no-blocking and no-discrimination rules due to broadband's status as an information service.⁹⁶ In doing so, the court implicitly crafted a clear, albeit at the time unthinkable path toward Internet regulation – reclassification of broadband as a telecommunications service, which would allow the FCC to apply Title II common carriage regulations to broadband providers.⁹⁷

For many legal and industry analysts, such a move was unthinkable. While some net neutrality partisans aggressively promoted this reclassification tactic,⁹⁸ many viewed it as political suicide for the FCC,⁹⁹ suggesting the FCC might advance its net neutrality agenda via common law, not statutory Title II, common carriage restrictions.¹⁰⁰ When considering

⁹⁵ *Id.* at 636-40.

⁹⁶ See generally *id.* at 659; Brand X, *supra* note 50.

⁹⁷ 47 U.S.C. §§ 153(50), (51), (53).

⁹⁸ See, e.g., Nilay Patel, *The Wrong Words: How the FCC Lost Net Neutrality and Could Kill the Internet*, THE VERGE (Jan. 15, 2014, 3:23PM), <http://www.theverge.com/2014/1/15/5311948/net-neutrality-and-the-death-of-the-internet>.

⁹⁹ Kevin Werbach, *The Court's Net-Neutrality Ruling Isn't Actually That Bad*, THE ATLANTIC (Jan. 15, 2014), <http://www.theatlantic.com/technology/archive/2014/01/the-courts-net-neutrality-ruling-isnt-actually-that-bad/283094/> (“You may have read some of the macho posturing that current FCC Chairman Tom Wheeler just needs to show that he’s ‘man enough’ to go the Title II route. Would that policy-making were that simple . . . Republicans and pro-telco Democrats in Congress will grind the FCC to a standstill, starve its budget, and do everything in their power to inflict permanent harm on the agency. Neither this White House nor the leaders of Silicon Valley have shown they would have the FCC’s back.”).

¹⁰⁰ *Telecommunications Law – Internet Regulation – D.C. Circuit Holds That Federal Communications Commission Violated Communications Act in Adopting Open Internet Rules. – Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014), 127 HARV. L. REV. 2565, 2752-54. (“The historical distinction between statutory common-carrier regulatory schemes and common law common-carrier obligations, the deference owed to agency interpretations of

the FCC's path forward beyond *Verizon*, Chairman Wheeler was personally open to Title II reclassification.¹⁰¹ Nevertheless, he principally focused on the FCC's Section 706 authority recognized by the *Verizon* court as the legal foundation for future net neutrality regulations,¹⁰² in combination with various legal contortions meant to ameliorate concerns that the FCC was still regulating broadband providers in a common carriage *per se* manner.¹⁰³ Indeed, in its 2014 NPRM, the FCC aimed to revive the 2010 rules primarily via Section 706 authority.¹⁰⁴

This strategy changed, however, later that year when President Obama entered the debate. Controversially intruding on the FCC's supposedly independent authority,¹⁰⁵ the President publicly recommended that the FCC reclassify broadband Internet service as a telecommunications service, and in doing so subject broadband providers to Title II

ambiguous statutes under *Chevron*, and Supreme Court precedent all support an interpretation of sections 153(51) and 332(c)(2)'s common carrier "under this [Act]" language as barring the FCC only from subjecting broadband providers to Title II's explicit common-carrier regulatory scheme--without barring the FCC from adopting Open Internet rules under section 1302 that subject broadband providers to the *lesser nondiscrimination requirements traditionally imposed on common carriers by state common law.*") (emphasis added).

¹⁰¹ Statement by FCC Chairman Tom Wheeler on the FCC's Open Internet Rules, Feb. 19, 2014, available at: https://apps.fcc.gov/edocs_public/attachmatch/DOC-325654A1.pdf ("[A]s long as Title II – with the ability to reclassify Internet access service as a telecommunications service – remains a part of the Communications Act, the Commission has the ability to utilize it if warranted. Accordingly, the Commission's docket on Title II authority remains open.").

¹⁰² Statement of Chairman Tom Wheeler, *In re Protecting and Promoting the Open Internet*, Notice of Proposed Rulemaking, FCC 14-61, GN Docket No. 14-28, 87 (May 15, 2014) [hereinafter *2014 NPRM*] ("The D.C. Circuit's ruling in January of this year upheld our determination that we need rules to protect Internet openness, and upheld our authority under Section 706 to adopt such rules In response, I promptly stated that we would reinstate rules that achieve the goals of the 2010 Order *using the Section 706-based roadmap laid out by the court. That is what we are proposing today.*") (emphasis added).

¹⁰³ See, e.g., *2014 NPRM* at ¶¶ 95, 111, 116.

¹⁰⁴ *Id.* at ¶ 143. The FCC did also leave Title II on the table, albeit with extensive concerns related to reclassification following *Brand X*, as well as regulatory forbearance. See *id.* at ¶¶ 148-50.

¹⁰⁵ See generally *Regulating The Internet: How The White House Bowled Over FCC Independence*, A Majority Staff Report of the Committee on Homeland Security and Governmental Affairs, United States Senate (Feb. 29, 2016); Gautham Nagesh and Brody Mullins, *Net Neutrality: How White House Thwarted FCC Chief*, THE WALL STREET JOURNAL (Feb. 4, 2015, 7:52PM), <http://www.wsj.com/articles/how-white-house-thwarted-fcc-chief-on-internet-rules-1423097522>.

common carrier regulations.¹⁰⁶ Eventually, Chairman Wheeler fell in lockstep with the President’s guidance, penning an op-ed for *Wired* mere weeks before the FCC’s release of its new Order. In the op-ed, the Chairman indicated a newfound focus by the FCC on reclassifying broadband as a telecommunications service, rather than pursuing Section 706 regulation of broadband as an information service.¹⁰⁷

The FCC issued its 2015 Order, wherein Wheeler’s 3-2 majority adopted the President’s agenda.¹⁰⁸ In the Order, the FCC explicitly cited the *Verizon* decision as a roadmap to reclassification.¹⁰⁹ To justify this move, the FCC argued that customers now perceive, and providers advertise broadband access as, a common carrier service connecting customers to a wide array of third-party edge provider content without any intermediary services or advanced processing by the broadband provider.¹¹⁰ The end regulatory result was the creation of three categorical rules prohibiting blocking,¹¹¹ throttling,¹¹² and paid

¹⁰⁶ See The White House, *President Obama’s Statement on Keeping the Internet Open and Free*, YOUTUBE (Nov. 10, 2014), <https://www.youtube.com/watch?v=uKcjQPVwfDk>; Ezra Mechaber, *President Obama Urges FCC to Implement Stronger Net Neutrality Rules*, THE WHITE HOUSE BLOG (Nov. 10, 2014, 9:15AM), <https://web.archive.org/web/20141110200952/http://www.whitehouse.gov/blog/2014/11/10/president-obama-urges-fcc-implement-stronger-net-neutrality-rules>.

¹⁰⁷ Chairman Wheeler rationalized the FCC’s acquiescence to President Obama’s Title II recommendation as stemming from a gradual evolution on the subject. See Tom Wheeler, *This is How We Will Ensure Net Neutrality*, WIRED (Feb. 4, 2015, 11:00AM), <http://www.wired.com/2015/02/fcc-chairman-wheeler-net-neutrality/>. (“Originally, I believed that the FCC could assure internet [sic] openness through a determination of “commercial reasonableness” under Section 706 of the Telecommunications Act of 1996. While a recent court decision seemed to draw a roadmap for using this approach, I became concerned that this relatively new concept might, down the road, be interpreted to mean what is reasonable for commercial interests, not consumers. That is why I am proposing that the FCC use its Title II authority to implement and enforce open internet [sic] protections.”).

¹⁰⁸ In addition to reclassifying broadband generally as a telecommunications service, the FCC also reclassified mobile broadband as a “commercial mobile service,” similarly subjecting it to Title II regulatory burden. See 47 U.S.C. § 332(d)(1); *2015 Order* at ¶¶ 308, 338-90.

¹⁰⁹ *2015 Order* at ¶¶ 307-08.

¹¹⁰ *Id.* at ¶¶ 347-52. (“Today, broadband service providers still provide various Internet applications, . . . but consumers are very likely to use their high-speed Internet connections to take advantage of competing services offered by third parties.”). *Contra* Brand X, *supra* note 50 at 974.

¹¹¹ *2015 Order* at ¶ 105

prioritization¹¹³ on broadband networks, as well as a broad “no-unreasonable interference/disadvantage” general conduct standard.¹¹⁴ To justify these new regulations, in the absence of substantive economic analysis,¹¹⁵ the FCC revived past specters of gatekeeping,¹¹⁶ anti-competitive incentives for vertically integrated cable providers,¹¹⁷ switching costs,¹¹⁸ and a handful of historical anecdotes.¹¹⁹ Batting down concerns that increased regulation would depress broadband investment,¹²⁰ the FCC argued that the primary drivers of broadband investment are subscriber growth and edge provider competition,¹²¹ which the FCC claimed these regulations would promote.¹²²

¹¹² *Id.* at ¶ 106.

¹¹³ *Id.* at ¶ 107.

¹¹⁴ *Id.* at ¶ 108 (“[T]he Commission can prohibit practices that unreasonably interfere with the ability of consumers or edge providers to select, access, and use broadband Internet access service to reach one another, thus causing harm to the open Internet. This no-unreasonable interference/disadvantage standard will operate on a case-by-case basis and is designed to evaluate other current or future broadband Internet access provider policies or practices—not covered by the bright-line rules—and prohibit those that harm the open Internet.”).

¹¹⁵ *Id.* at ¶ 84 (“Broadband providers have the ability to act as gatekeepers even in the absence of ‘the sort of market concentration that would enable them to impose substantial price increases on end users.’ We therefore need not consider whether market concentration gives broadband providers the ability to raise prices.”).

¹¹⁶ *Id.* at ¶ 80.

¹¹⁷ *Id.* at ¶ 82.

¹¹⁸ *Id.* at ¶¶ 84, 97-99.

¹¹⁹ *Dissenting Statement of Commissioner Ajit Pai* at 5933 (“A small ISP in North Carolina allegedly blocked VoIP calls a decade ago. Comcast capped BitTorrent traffic to ease upload congestion eight years ago. Apple introduced FaceTime over Wi-Fi first, cellular networks later The bogeyman never had it so easy.”).

¹²⁰ *2015 Order* at ¶¶ 360, 415-16 (“As a factual matter, the regulatory status of broadband internet access service appears to have, at most, an indirect effect (along with many other factors) on investment.”).

¹²¹ *Id.* at ¶ 412.

¹²² *See, e.g., id.* at ¶ 77 (“[T]he Internet’s openness continues to enable a virtuous cycle of innovation in which new uses of the network—including new content, applications, services, and devices—lead to increased end-user demand for broadband, which drives network improvements, which in turn lead to further innovative network uses.”) (internal quotation marks omitted).

For the third time, the broadband industry contested the FCC's attempts at broadband regulation in court.¹²³ Yet, for the FCC, the third time was ultimately the charm. Indeed, the D.C. Circuit Court of Appeals, unlike in previous partial FCC victories like *Verizon*, upheld the 2015 Order in full.¹²⁴ In addition to finding that the FCC was not in violation of either the Administrative Procedure or Regulatory Flexibility Acts and that its 2014 NPRM gave adequate notice of Title II reclassification,¹²⁵ the court applied administrative deference to the FCC's reclassifications under *Chevron*.¹²⁶ Ultimately, the court agreed with the FCC's contention that customers perceive broadband providers as offering common carrier services,¹²⁷ and thus upheld broadband's reclassification under Title II.¹²⁸

In upholding Title II reclassification of broadband providers, the D.C. Circuit Court of Appeals implicitly presaged a favorable review of the FCC's subsequent regulatory efforts stemming from reclassification, including its recently proposed privacy regulations. To that end, the FCC announced its intention to institute new privacy regulations for broadband providers in a recent NPRM, asserting the authority to do so pursuant to, among others,

¹²³ See U.S. Telecomm. Ass'n, *supra* note 8.

¹²⁴ *Id.* at 115.

¹²⁵ *Id.* at 29-31

¹²⁶ *Id.* at 32. See also *id.* at 22-23 ("Our role in reviewing agency regulations is a limited one. Our job is to ensure that an agency has acted within the limits of Congress's delegation of authority, and that its action is not arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. Critically, we do not inquire as to whether the agency's decision is wise as a policy matter; indeed, we are forbidden from substituting our judgment for that of the agency. Nor do we inquire whether some or many economists would disapprove of the agency's approach because we do not sit as a panel of referees on a professional economics journal, but as a panel of generalist judges obliged to defer to a reasonable judgment by an agency acting pursuant to congressionally delegated authority.") (internal quotation marks and citations omitted).

¹²⁷ *Id.* at 24-28.

¹²⁸ The court also upheld the FCC's reclassification of mobile broadband. See *id.* at 66-82.

Section 222¹²⁹ of Title II of the 1934 Communications Act.¹³⁰ In the NPRM, the FCC proposes to regulate broadband providers' use of customer data, dependent upon the particular context of that data usage. Under the new rules, if a broadband provider were to use customer data to market "communications-related services" on its own or via an affiliate, the broadband provider must provide the customer "with notice and opportunity to opt-out" of such private data usage.¹³¹ If, however, a broadband provider were to use customer data for almost any other purpose, the broadband provider must seek affirmative opt-in consent from the customer in order to do so.¹³² Customer data subject to this latter opt-in requirement falls under two categories: 1) Customer Proprietary Network Information (CPNI), a statutory category already defined by existing FCC regulations;¹³³ and 2) "personally identifiable information" (PII), a sweeping and vague new category proposed in the NPRM that may include such disparate data as one's social security number, biometric information, religious affiliation, MAC address, and even browser cookies.¹³⁴

¹²⁹ While the FCC primarily asserted regulatory authority via Section 222, it also asserted a litany of other sources of statutory authority for its regulations. *See generally In re Protecting the Privacy of Customers of Broadband and Other Telecommunications Services*, Notice of Proposed Rulemaking, FCC 16-31, WC Docket No. 16-106, ¶¶ 296-310 (March 31, 2016) [hereinafter *Privacy NPRM*].

¹³⁰ These regulations were necessary in part because the FTC, the government agency that prosecuted broadband privacy violations deemed "unfair and deceptive acts," is now, post-2015 Open Internet Order, barred from regulating broadband providers because of the 1914 FTC Act's common carrier exemption. *See* 15 U.S.C. §§ 45(a)(1) and (2).

¹³¹ *Privacy NPRM* at ¶¶ 122-26.

¹³² *Id.* at ¶¶ 127-33.

¹³³ *Id.* at ¶¶ 7, 38, 56.

¹³⁴ *Id.* at ¶¶ 60-66.

IV. Failures of Title II Internet Regulation

As elaborated above, Title II regulation of the Internet is economically unjustified,¹³⁵ harming broadband providers and consumers alike. Its failures can be categorized into five sections, as discussed below: 1) raising broadband prices; 2) categorically banning low-cost and high-priority broadband plans; 3) threatening future innovation and investment with regulatory uncertainty; 4) failing to recognize increasing, not decreasing, competition amongst broadband providers; and 5) failing to recognize the documented abusive gatekeeping power of edge providers.

A. Title II Raises Broadband Prices

In 1997, in compliance with the 1996 Telecommunications Act, the FCC established a Universal Service Fund (“USF”) to further statutory principles of universal service.¹³⁶ The FCC began mandating “contributions” from interstate telecommunications carriers in order to sustain this fund.¹³⁷ It continues to do so today.¹³⁸

By classifying broadband providers as telecommunications carriers, the FCC effectively extends the “contributions” requirements on interstate telecommunications services to American broadband providers.¹³⁹ In doing so, the FCC raises the price of

¹³⁵ See also Gordon Crovitz, ‘Economics-Free’ Obamanet, THE WALL STREET JOURNAL (Jan. 31, 2016, 6:20PM), <http://www.wsj.com/articles/economics-free-obamanet-1454282427>.

¹³⁶ See generally 47 U.S.C. § 254(b); *Universal Service*, FEDERAL COMMUNICATIONS COMMISSION, <https://www.fcc.gov/general/universal-service> (last accessed July 11, 2016).

¹³⁷ 47 U.S.C. § 254(d) (“Every telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service.”).

¹³⁸ See, e.g., *Proposed First Quarter 2016 Universal Service Contribution Factor*, 30 F.C.C.R. 14094 (2015).

¹³⁹ Note that currently, the FCC is forbearing from requiring broadband providers to contribute to the Universal Service Fund. However, the FCC has made clear that such forbearance is only temporary and may be revised in the future, subject to future market conditions and industry comments it receives. *2015 Order* at ¶¶ 488-89, 495 n. 1487.

broadband access for American consumers. While requiring broadband customers (through their providers) to pay into the USF may lift some of the USF contribution burden from customers of legacy telecommunications services and bring increased stability to the USF,¹⁴⁰ requiring these contributions will nevertheless increase retail broadband prices,¹⁴¹ potentially foreclosing some low-income broadband customers on the margin.

The FCC's recently proposed privacy regulations will also increase broadband prices.¹⁴² By mandating opt-*in* consent for broadband use of customer data, changing course from previous opt-*out* rules, these regulations foreclose existing revenue streams for broadband providers.¹⁴³ Ultimately, broadband providers, forced to recoup these lost revenues, will pass this cost onto their customers in the form of higher retail broadband prices.¹⁴⁴

¹⁴⁰ 2015 Order at ¶ 489 (“[N]ewly applying universal service contribution requirements on broadband Internet access service potentially could spread the base of contributions to the universal service fund, providing at least some benefit to customers of other services that contribute, and potentially also to the stability of the universal service fund through the broadening of the contribution base.”).

¹⁴¹ In an ideal world, the FCC would ensure that USF contributions required of broadband providers would result in *de minimus* increases in broadband costs, while widening and thus stabilizing the base of USF contributors. However, given the FCC's less than ideal management of the USF and related programs in recent history, such an outcome is speculative at best. See, e.g., Press Release, FCC, Blue Jay Wireless to Pay \$2 Million, Ending Investigation into its Tribal Lifeline Reimbursements in Hawaii (July 15, 2016), available at: http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0715/DOC-340238A1.pdf; FCC Chairman Wheeler Announces Universal Service Fund Strike Force, FEDERAL COMMUNICATIONS COMMISSION, https://apps.fcc.gov/edocs_public/attachmatch/DOC-328183A1.pdf; Sara Jerome, *Study: Half of Telecom Subsidy Goes to Phone Company Overhead*, THE HILL (Feb. 23, 2011), <http://thehill.com/policy/technology/145693-study-half-of-high-costq-fund-goes-to-general-operations-of-phone-companies>.

¹⁴² See generally Joshua D. Wright, *An Economic Analysis of the Proposed Regulation of Broadband Privacy*, available at: https://www.ustelecom.org/sites/default/files/documents/ExParte_re_Wright_Privacy_FINAL.pdf.

¹⁴³ *Id.* at 21 (“The NPRM’s approach would force ISPs to absorb significant costs and would foreclose opportunities to develop important revenue streams. In other words, it would increase operation costs for ISPs, leading to increased retail prices.”).

¹⁴⁴ *Id.* at 22 (“[T]he NPRM would significantly curtail ISPs’ abilities to develop valuable revenue streams and would likely foreclose them from certain types of revenues altogether. These effects would translate to higher retail broadband (and other) prices for consumers.”).

The mandatory opt-in consent provision may also raise broadband prices through the prohibition of innovative, welfare-enhancing broadband plans. For example, AT&T's GigaPower service, a high-speed fiber offering in select markets, seeks to offset the high cost of fiber broadband by utilizing private customer data. In exchange for receiving targeted ads based upon their network usage, AT&T Gigapower customers can receive a \$30 monthly discount.¹⁴⁵ This option has been “resoundingly embraced by the vast majority of AT&T broadband customers.”¹⁴⁶ This is not surprising, as these same customers routinely trade similar private data in exchange for free access to valuable, ad-supported online services and social media platforms.¹⁴⁷ Yet, in its NPRM, the FCC “questions . . . whether this pro-competitive offering . . . should . . . be prohibited altogether.”¹⁴⁸ Thus, the FCC's new privacy rules may force customers of GigaPower and similar services, who happily trade their private data for a lower monthly bill, onto a more expensive service tier that is not in alignment with their economic preferences.

In the end, by switching the default rule governing broadband privacy from *opt-out* to *opt-in*, the FCC is imposing significant transaction costs on consumers who would otherwise be interested in trading privacy for reduced broadband prices – ones they are

¹⁴⁵ See *U-verse with AT&T GigaPower Internet Preferences*, AT&T, <https://www.att.com/esupport/article.html#!/u-verse-high-speed-internet/KM1011211> (last accessed July 18, 2016).

¹⁴⁶ See Wright, *supra* note 142 at 27; *Privacy NPRM* at ¶ 259.

¹⁴⁷ See Wright, *supra* note 142 at 15-16 (“The NPRM likewise affords no consideration to the fact that consumers tremendously value the advertising model that dominates the Internet today and that is largely based on opt-out consent Indeed, one study found that, on average, Americans assigned a value of almost \$12,000 per year to the package of free, ad-supported services and content currently available to them on computers and mobile devices.”) (internal quotations omitted). See also Wright, *supra* note 142 at 19 (“75% of American consumers report they would decrease their online activity a great deal if they were forced to pay for services and content they receive for free today.”) (internal quotations omitted).

¹⁴⁸ *Id.* at 27.

unlikely to bear. Ultimately, this creates a *de facto* ban on broadband providers' use of the vast majority of customer's private data¹⁴⁹ and consequently raises retail broadband prices. Thus, in the end, default rules matter. To make up lost revenue from lost customers who cannot trade off privacy for service, AT&T and other providers must raise prices for *all* their customers, not just those who value privacy over discounts.

B. Title II Categorically Bans Innovative Low-Cost and High-Priority Broadband Plans

1. Low-Cost Broadband Plans

In addition to raising broadband prices, the FCC's 2015 Order wholesale bans innovative, low-cost, welfare-enhancing broadband offerings that utilize blocking, throttling, and/or prioritization techniques. Consider, for example, a 2011 MetroPCS smartphone plan, which for \$40 per month offered users 1 GB of mobile Internet data that they could use for any purpose other than data-intensive services like video or VoIP.¹⁵⁰ Net neutrality partisans were quick to label MetroPCS a "net neutrality violator"¹⁵¹ "looking to lay down new toll layers atop the mobile Internet,"¹⁵² exacting extra fees from customers for the privilege of using its network in certain ways. In reality, though, MetroPCS was simply offering its customers a choice to receive a \$20 per month discount in exchange for

¹⁴⁹ *Id.* at 14. ("[F]or many consumers, it is simply not worthwhile to incur the transaction costs of opting in – devoting time and attention to understanding a privacy policy's implications and taking the steps necessary to provide the required consent In those circumstances, most consumers will simply take the path of least resistance and make no decision at all – thereby failing to opt in by default under the NPRM's scheme.")

¹⁵⁰ With the exception of allowing access to YouTube. Ryan Singel, *MetroPCS 4G Data-Blocking Plans May Violate Net Neutrality*, WIRED (Jan. 7, 2011, 10:41AM), <http://www.wired.com/2011/01/metropcs-net-neutrality/>; Ryan Kim, *MetroPCS LTE Plans to Charge More for VoIP & Streaming*, GIGAOM (Jan. 4, 2011), <https://gigaom.com/2011/01/04/metropcs-lte-plans-charge-more-for-skype-and-streaming/>.

¹⁵¹ *MetroPCS: Net Neutrality Violator*, SAVE THE INTERNET, http://act2.freepress.net/sign/metropcs_violation/ (last accessed July 18, 2016).

¹⁵² Kim, *supra* note 150.

refraining from bandwidth-intensive use of its network.¹⁵³ Such a discount equated to a significant cost savings when compared to the competition at the time,¹⁵⁴ likely representing an attractive offer to low-income or price-sensitive customers eager to own their first smartphone. Yet, MetroPCS's 2011 plan and ones like it are now prohibited by the 2015 Order's no-blocking rules. Even if MetroPCS or others elected to merely throttle or prioritize certain data, such practices would likely also be prohibited or imperiled by the 2015 Order, even if such practices were not sponsored.¹⁵⁵

More broadly, the FCC's prohibition against blocking, throttling, and prioritization schemes produces tremendous economic inefficiencies. Net neutrality advocates claim that incomplete or impaired access to certain portions of the Internet is inherently harmful, and that instead, unfettered access to the "complete Internet" produces positive externalities for both broadband and edge providers.¹⁵⁶ They also fear that if the FCC did not ban blocking, throttling, and prioritization schemes, broadband providers would simply utilize these schemes to create artificial tiers of Internet service, wherein customers would be forced to

¹⁵³ Indeed, MetroPCS simultaneously offered customers a \$60 per month plan with none of these aforementioned restrictions. *Id.*

¹⁵⁴ The closest competitors, T-Mobile and Verizon, offered only 200MB and 150MB of data respectively at \$59.99 per month, without MetroPCS's included unlimited minutes and texts. Nicole Lee, *True Cost of a Smartphone: Price Plan Comparison*, CNET (Jan. 24, 2011, 7:08PM), <http://www.cnet.com/news/true-cost-of-a-smartphone-price-plan-comparison/>.

¹⁵⁵ See *infra* section IV-B-1.

¹⁵⁶ See *2010 Order* at ¶ 14 ("The Internet's openness is critical to these outcomes, because it enables a virtuous circle of innovation in which new uses of the network – including new content, applications, services, and devices – lead to increased end-user demand for broadband, which drives network improvements, which in turn lead to further innovative network uses."); Joshua D. Wright, Commissioner, Federal Trade Commission, *Net Neutrality Meets Regulatory Economics 101, Remarks at The Federalist Society Media and Telecommunications Practice Group Event: The Future of Media – Is Government Regulation in Today's Media Landscape "Over-The-Top"?* at 12 (Feb. 25 2015) at 12, available at: https://www.ftc.gov/system/files/documents/public_statements/626591/150225wrightfedsoc.pdf ("The argument would seem to be that there is some social interest in egalitarian access to all broadband providers' networks – in effect a one-size-fits-all contract between broadband providers and content providers – and that we cannot trust the marketplace to reach this outcome without regulatory intervention.").

pay higher prices in order to receive access to the same content that they currently enjoy today.¹⁵⁷

However, services offering varying tiers of service differentiated by quality, access, or speed have long been a mainstay in economic markets, to the benefit of countless low-income individuals. Such tiering allows customers to pay for only their desired level of service, and nothing more. Consider Amtrak.¹⁵⁸ When taking a train with Amtrak, a customer is free to select from a variety of service levels.¹⁵⁹ Price-sensitive customers can choose a coach train, time-sensitive customers can choose an Acela express train, and comfort-sensitive customers can choose a seat in either business or first class.¹⁶⁰ Amtrak tailors the quality and price of these individualized service offerings to meet the unique preferences of these varying classes of customers. If it were instead to impose a one-size-fits-all regime on its customers, Amtrak would frustrate one or all of its customer classes. For example, if Amtrak constructed an all-coach train fleet, it would frustrate the comfort or speed preferences of express, first, and business class customers. Likewise, if Amtrak constructed an all-premium fleet, it would raise the average ticket price across all customer classes, forcing would-be coach customers to subsidize customers with comfort and speed preferences.

¹⁵⁷ See, e.g., Betsy Isaacson, *One Frightening Chart Shows What You Might Pay for Internet Once Net Neutrality is Gone*, THE HUFFINGTON POST (Jan. 25 2014, 7:33AM), http://www.huffingtonpost.com/2014/01/17/net-neutrality-gone_n_4611477.html.

¹⁵⁸ The following builds upon some of the economic analysis of Judge Williams' dissent. See U.S. Telecomm. Ass'n, *supra* note 8 at 153 (Williams, dissenting).

¹⁵⁹ *Seating Accommodations*, AMTRAK, <https://www.amtrak.com/onboard-the-train-seating-accommodations> (last accessed July 18, 2016).

¹⁶⁰ *Id.*

With its anti-consumer choice 2015 Open Internet Order, the FCC is imposing this exact kind of unfair subsidization on the broadband marketplace. Under the guise of protecting whole-Internet access, the FCC is forcing low-income and low-usage Internet customers to unfairly subsidize affluent bandwidth hogs.¹⁶¹ This is particularly troubling considering that, as of 2015, the home broadband subscriber base has largely plateaued, with many minority, rural, elderly, and low-income users foregoing broadband entirely.¹⁶² These are the exact types of consumers that would benefit from plans similar to MetroPCS's inexpensive video and VoIP-blocking 2011 smartphone plan, who are instead being forced to subsidize, among others, affluent millennial cord-cutting bandwidth hogs.¹⁶³

2. Data Prioritization and Critical Connectivity

Bans on paid prioritization are particularly pernicious as Internet users increasingly rely on real-time Internet applications. Unlike their on-demand brethren, real-time Internet applications require low latency and extreme responsiveness, and cannot rely on caching or buffering.¹⁶⁴ This is especially true for the burgeoning field of telehealth, which aims to

¹⁶¹ This would be similar to the aforementioned theoretical world in which Amtrak only offered first class seats. Omri Ben-Shahar, *The FCC's Elitist Priorities in the Regulation of Net Neutrality and Privacy*, FORBES (June 14, 2016, 11:22PM), <http://www.forbes.com/sites/omribenshahar/2016/06/14/the-fccs-elitist-priorities-in-the-regulation-of-net-neutrality-and-privacy/print/> (“[H]eavy-data websites like Netflix or YouTube are the equivalent of premium TV channel[s]. Requiring that their content be included without extra charge in the basic package makes the subscription more expensive and less affordable Both the net neutrality and privacy rules will not make internet [sic] cheaper. If internet [sic] providers were allowed to profit from data collection or to charge for premium data usage, the basic package they offer would be low-use, low-privacy, and low-price.”).

¹⁶² 33% cite cost as the major reason why they are foregoing home broadband service. See John B. Horrigan and Maeve Duggan, *Home Broadband 2015*, PEW RESEARCH CENTER at 4 (Dec. 21, 2015), available at: <http://www.pewinternet.org/files/2015/12/Broadband-adoption-full.pdf>

¹⁶³ *Id.*; Ben-Shahar, *supra* note 161.

¹⁶⁴ See, e.g., *Caching Content for Holiday Streaming*, THE NETFLIX TECH BLOG (Dec. 1, 2015), <http://techblog.netflix.com/2015/12/caching-content-for-holiday-streaming.html>.

connect individuals living in remote rural areas to faraway healthcare professionals.¹⁶⁵

Responsiveness will likely also be an issue for Internet-connected autonomous cars, relying on up-to-the-minute weather updates to calculate life or death driving decisions.¹⁶⁶

Customers would likely be better off if the FCC allowed businesses offering real-time services over the Internet to pay broadband providers for prioritized connections to their customers.¹⁶⁷ Yet, by banning such prioritization arrangements, the FCC is subjecting these innovative and critical network uses to the same types of congestion suffered by low-priority network uses.¹⁶⁸

¹⁶⁵ Lea Skorin-Kapov and Maja Matijasevic, *Analysis of QoS Requirements for e-Health Services and Mapping to Evolved Packet System QoS Classes*, available at: <http://www.hindawi.com/journals/ijta/2010/628086/> (“In the case of robotic tele-surgery, a key requirement is a minimal delay time from when a surgeon's hand movement is initiated, the remote manipulator actually moves, and images are shown on the surgeon's monitor. Studies have shown that the limit of the acceptable time delay in terms of a surgeon's perception of safety was roughly 330ms.”).

¹⁶⁶ See Lucas Mearian, *Why Your Car Will Be Connected to the Internet by 2020*, COMPUTERWORLD (Apr. 8, 2015, 11:31AM), <http://www.computerworld.com/article/2907540/why-your-car-will-be-connected-to-the-internet-by-2020.html>; Jesse Kirkpatrick, *The Ethical Quandary of Self-Driving Cars*, SLATE (June 6, 2016, 7:30AM), http://www.slate.com/articles/technology/future_tense/2016/06/self_driving_cars_crash_optimization_algorithms_offer_an_ethical_quandary.html.

¹⁶⁷ See Hal Singer, *Three Ways the FCC's Open Internet Order Will Harm Innovation*, PROGRESSIVE POLICY INSTITUTE (May 19, 2015), <http://www.progressivepolicy.org/publications/policy-memo/three-ways-the-fccs-open-internet-order-will-harm-innovation/>.

¹⁶⁸ Telecom providers recently expressed similar concerns, as they relate to European regulation of 5G services. See Michael Carroll, *European Telcos Claim Net Neutrality is Major Barrier to 5G Investment*, FIERCEWIRELESS (July 8, 2016), <http://www.fiercewireless.com/europe/story/european-telcos-claim-net-neutrality-major-barrier-5g-investment/2016-07-08> (“The nub of their argument appears to be that net neutrality rules would not enable them to prioritise [sic] key services expected to be enabled by 5G, including automated driving, smart grid control, virtual reality, and public safety services. Such services require a ‘flexible and elastic configuration of resources in networks and platforms, on a continuous basis’ . . .”).

C. Title II-Related Regulatory Uncertainty Threatens Innovation and Investment

1. Zero Rating

While the 2015 Order does not outright ban zero rating¹⁶⁹ like it does the aforementioned practices of blocking, throttling, and paid prioritization, it nevertheless places zero rating squarely within the FCC’s regulatory sights.¹⁷⁰ Opponents of zero rating fear that preferential treatment of certain Internet content will distort competition between edge providers, artificially pointing users towards select pre-approved content.¹⁷¹ Proponents, meanwhile, view zero rating as an innovative way for providers to compete in the broadband marketplace, while simultaneously balancing the competing interests of network use and network management.

In order to examine how zero rating has actually played out in the real world, consider the case of T-Mobile. In 2014, T-Mobile made headlines by introducing a zero rating scheme called “Music Freedom,” which exempted select music services from its users’ data caps.¹⁷² A little over a year later, it enacted a similar zero rating scheme for

¹⁶⁹ Zero rating is the practice of excluding certain uses of data, and not others, from counting against a customer’s data cap. See generally Peter Nowak, *Why ‘Zero Rating’ is the New Battleground in Net Neutrality Debate*, CBC NEWS (Apr. 7, 2015, 5:00AM), <http://www.cbc.ca/news/business/why-zero-rating-is-the-new-battleground-in-net-neutrality-debate-1.3015070>.

¹⁷⁰ *2015 Order* at ¶¶ 151-53 (“We are mindful of the concerns raised in the record that sponsored data plans have the potential to distort competition by allowing service providers to pick and choose among content and application providers to feature on different service plans. At the same time, new service offerings, depending on how they are structured, could benefit consumers and competition. Accordingly, we will look at and assess such practices under the no-unreasonable interference/disadvantage standard, based on the facts of each individual case, and take action as necessary.”); *Dissenting Statement of Commissioner Ajit Pai* at 5923; Ina Fried, *A Huge Win on Net Neutrality Could Embolden the FCC to Tighten Regulations in Other Areas*, RECODE (June 16, 2016, 4:17PM), <http://www.recode.net/2016/6/16/11950064/fcc-net-neutrality-privacy-regulation>.

¹⁷¹ See Susan Crawford, *Zero for Conduct*, BACKCHANNEL (Jan. 7, 2015) (“Zero-rating, by contrast, is absolutely inappropriate. It makes certain kinds of traffic exempt from any data cap at all, or creates a synthetic ‘online’ experience for users that isn’t the Internet. Traffic that is ‘approved’ is allowed; other traffic won’t flow to users.”).

¹⁷² Press Release, T-Mobile, T-Mobile Sets Your Music Free (June 18, 2014), available at: <https://newsroom.t-mobile.com/news-and-blogs/t-mobile-sets-your-music-free.htm>.

video providers with “Binge On.”¹⁷³ Critics immediately pounced, decrying T-Mobile’s moves as an existential threat to the Internet as we know it.¹⁷⁴ At first, these critics were primarily concerned with the broadband-provider-as-gatekeeper net neutrality argument.¹⁷⁵ T-Mobile subsequently opened its zero rating schemes to all edge providers at no cost.¹⁷⁶ Still, critics found fault with Binge On’s technical requirements, arguing they served as a barrier to certain kinds of secure video content, especially from smaller providers.¹⁷⁷ Yet, T-Mobile worked with edge providers to ameliorate these concerns as well.¹⁷⁸ In all, T-Mobile’s combined zero rating schemes now include over 100 content providers,¹⁷⁹ incorporating such diverse offerings as a Spanish-language religious video network (ESNE),

¹⁷³ Press Release, T-Mobile, T-Mobile Unleashes Mobile Video with Binge On (Nov. 10, 2015), available at: <https://newsroom.t-mobile.com/media-kits/un-carrier-x.htm>.

¹⁷⁴ See generally Chris Ziegler, *T-Mobile’s ‘Music Freedom’ is a Great Feature – and a Huge Problem*, THE VERGE (June 18, 2014, 9:42PM), <http://www.theverge.com/2014/6/18/5822996/t-mobile-music-freedom-net-neutrality>; T.C. Sottek, *T-Mobile is Writing the Manual on How to Fuck Up the Internet*, THE VERGE (Nov. 10, 2015, 3:36PM), <http://www.theverge.com/2015/11/10/9706296/t-mobile-binge-on-streaming-net-neutrality-problem-john-legere>; Sascha Segan, *T-Mobile Just Keeps Digging Deeper with ‘Binge On’*, PC MAG (Jan. 12, 2016), <http://www.pcmag.com/article2/0,2817,2497816,00.asp>; Barbara van Schewick, *T-Mobile’s Binge On Violates Key Net Neutrality Principles*, STANFORD LAW SCHOOL CENTER FOR INTERNET AND SOCIETY (Jan 29, 2016), available at: <http://cyberlaw.stanford.edu/blog/2016/01/t-mobiles-binge-violates-key-net-neutrality-principles>.

¹⁷⁵ Ziegler, *supra* note 174 (“[I]t’s a terribly slippery slope: T-Mobile has decided, arbitrarily, that some of the data traveling over its pipes should count against a cap, while other data should not.”).

¹⁷⁶ See *Content Provider Technical Requirements for Binge On*, T-MOBILE, <http://www.t-mobile.com/content/dam/tmo/en-g/pdf/BingeOn-Video-Technical-Criteria-March-2016.pdf>.

¹⁷⁷ See van Schewick, *supra* note 174 at 21-26. In particular, Binge On’s compatibility with specially secured HTTPS and UDP video streams requires special coordination with T-Mobile. See also *Content Provider Technical Requirements for Binge On*, *supra* note 176. Google experienced this as it proceeded to make YouTube compatible with Binge On. Thomas Gryta and Drew Fitzgerald, *T-Mobile’s Problem with YouTube: What’s a Video and What’s Not*, THE WALL STREET JOURNAL (Nov. 12, 2015, 3:13PM), <http://blogs.wsj.com/digits/2015/11/12/t-mobiles-problem-with-youtube-whats-a-video-and-whats-not/>.

¹⁷⁸ See, e.g., Christian Kleinerman, *Google, YouTube, and Binge On*, GOOGLE PUBLIC POLICY BLOG (Mar. 17, 2016), <https://publicpolicy.googleblog.com/2016/03/google-youtube-and-binge-on.html>.

¹⁷⁹ Press Release, T-Mobile, Now, More Than 100 Services Stream Free with T-Mobile’s Binge On and Music Freedom (Apr. 5, 2016), available at: <https://newsroom.t-mobile.com/news-and-blogs/binge-on-music-freedom-new-services.htm>.

an Indian-centric music streaming service (Saavn), and adult entertainment services (MiKandi, Streamate).¹⁸⁰

Given critics' substantial hand wringing, one might think Music Freedom and Binge On have been disasters for T-Mobile customers and the broader Internet ecosystem. Yet, nothing could be further from the truth. Instead, T-Mobile's combined zero rating efforts have been a tremendous boon for T-Mobile customers, edge providers, and even customers of other mobile providers. Since the inception of Binge On, video viewership on T-Mobile's network has more than doubled; combined with Music Freedom, the two schemes have allowed T-Mobile customers to use 350 petabytes¹⁸¹ of data without such use counting against their data caps.¹⁸² Moreover, 24 key mobile apps saw a 55% increase in user engagement mere months after Binge On began.¹⁸³ Such increased usage benefits edge providers too – especially providers of ad-supported content who derive additional revenues from increased viewership and/or listenership. More broadly, Music Freedom and Binge On, in conjunction with T-Mobile's other "Un-carrier" initiatives,¹⁸⁴ have forced mobile providers to compete aggressively on price, international use, data cap allotment, and even the traditional two-year contract model,¹⁸⁵ much to the average mobile customer's benefit.¹⁸⁶

¹⁸⁰ *Binge On Streaming Video List*, T-MOBILE, <http://www.t-mobile.com/offer/binge-on-streaming-video-list.html>; *Music Freedom List*, T-MOBILE, <http://www.t-mobile.com/offer/music-freedom-list.html>.

¹⁸¹ For a sense of scale, one petabyte equals one thousand terabytes, or one million gigabytes. See Nate, *How Much is a Petabyte*, THE MOZY BLOG (July 2, 2009), <https://mozy.com/blog/misc/how-much-is-a-petabyte/>.

¹⁸² Press Release, *supra* note 179.

¹⁸³ Emmy Duong, *T-Mobile's New 'Binge On' Program Encourages Users to Binge on Video Streaming, for Free*, M2 APP INSIGHT (Feb. 2016), <http://m2appinsight.com/tmobile-binge-on-free-streaming-netflix-hulu-data-consumption/>.

¹⁸⁴ *Un-carrier Moves*, available at: https://newsroom.t-mobile.com/doc_download.cfm?doc_id=137.

¹⁸⁵ See generally Colin Gibbs, *T-Mobile Hammers Verizon's New Plans, Proclaims U.S. Wireless Competitive Market*, FIERCEWIRELESS (July 13, 2016), <http://www.fiercewireless.com/story/t-mobile-hammers-verizons-new-plans-proclaims-us-wireless-market-competitiv/2016-07-13>; David Pogue, *How T-Mobile Changed the Wireless*

Zero rating critics imperil the fruits of this aggressive competition. By championing zero rating bans, they seek to prohibit T-Mobile and others from offering innovative and competitive consumer products¹⁸⁷ that increase consumer welfare. Academics and the press are not the only zero rating critics, though. Just this year, the FCC shook down T-Mobile, with the purported aim of ensuring that its zero rating schemes complied with the 2015 Order's general conduct standard.¹⁸⁸ Such regulatory uncertainty threatens not only T-Mobile, but also the overall industry and consumer gains from such competitive zero rating schemes by discouraging these innovative forms of competition.

Industry – and our Lives – Forever, YAHOO! TECH (Aug. 28, 2015), <https://www.yahoo.com/tech/how-t-mobile-changed-the-wireless-industry-and-127690231194.html>; Glenn Fleishman, *How T-Mobile's Pricing is pushing AT&T and Verizon in a Race to the Bottom*, MACWORLD (Aug. 15, 2015, 5:00AM), <http://www.macworld.com/article/2971475/consumer-advice/how-t-mobiles-pricing-is-pushing-att-and-verizon-in-a-race-to-the-bottom.html>; Timothy B. Lee, *Cellphone Plans are Getting Cheaper – Thanks, Obama! (and T-Mobile)*, VOX (Jan. 7, 2016, 12:30PM), <http://www.vox.com/2016/1/7/10730384/cellphone-obama-t-mobile>; Kevin Kelleher, *You Should Thank This Company for Better Phone Plans*, TIME (Sept. 28, 2015), <http://time.com/4052524/t-mobile-john-legere-iphone/>; *AT&T Cuts Prices Again*, CNN MONEY (Mar. 10, 2014, 7:00AM), <http://money.cnn.com/2014/03/09/technology/mobile/att-price-cut/>; Jon Brodtkin, *Phone Contracts Now Even More Dead, with AT&T Killing Them, Too*, ARS TECHNICA (Jan. 4, 2016, 10:57AM), <http://arstechnica.com/business/2016/01/att-getting-rid-of-phone-contracts-and-subsidies-this-week/>.

¹⁸⁶ For example, Cricket, a subsidiary of AT&T and T-Mobile rival in the budget mobile market, recently unveiled an unlimited data plan with no data cap and no additional throttling for \$70 per month. See Williams Pelegrin, *Cricket Wireless Takes Aim at T-Mobile, Launches Cheaper Unlimited Data Plan*, DIGITAL TRENDS (Apr. 16, 2016, 12:42PM), <http://www.digitaltrends.com/mobile/cricket-wireless-unlimited-data-plan/>.

¹⁸⁷ The most recent complaint lodged against T-Mobile is its zero rating of data used by the popular new augmented reality game “Pokémon Go.” See, e.g., T.C. Sottek, *T-Mobile Gives Customers Free Pokémon Go Data, Which is Something Team Rocket Would Do*, THE VERGE (July 14, 2016, 3:50 PM), <http://www.theverge.com/2016/7/14/12192752/t-mobile-pokemon-go-free-data>; Brian Barrett, *T-Mobile's Free Pokémon Go Data Isn't Worth the Trouble*, WIRED (July 14, 2016, 6:35PM), <http://www.wired.com/2016/07/t-mobile-pokemon-go/>.

¹⁸⁸ See Letter from Roger Sherman, Bureau Chief, Wireless Telecommunications Bureau, to Kathleen Ham, Senior Vice President, Government Affairs, T-Mobile (Dec. 16, 2015), available at: <http://assets.documentcloud.org/documents/2648554/Letter-to-Kathleen-Ham.pdf>; Jon Brodtkin, *Comcast, AT&T, and T-Mobile Must Explain Data Cap Exemptions to FCC*, ARS TECHNICA (Dec. 17, 2015, 5:37PM), <http://arstechnica.com/business/2015/12/comcast-att-and-t-mobile-must-explain-data-cap-exemptions-to-fcc/>; Jon Brodtkin, *FCC Had “Productive” Net Neutrality Talks with Comcast and T-Mobile*, ARS TECHNICA (Jan. 15, 2016), <http://arstechnica.com/business/2016/01/fcc-had-productive-net-neutrality-talks-with-comcast-att-t-mobile/>.

2. Broadband Investment

As stated above, Wheeler’s majority at the FCC has shown little concern for the effects of its 2015 Order on broadband investment,¹⁸⁹ arguing that broadband providers will nevertheless continue to build out their networks in response to subscriber growth¹⁹⁰ and edge provider competition fueling a “virtuous cycle” of broadband investment.¹⁹¹ Given broadband providers’ conflicting needs to reassure investors, appease regulators, but also rally against burdensome regulations, attempts to parse their executives’ public comments on this issue predictably prove to be less than¹⁹² illuminating.¹⁹³

¹⁸⁹ *Supra* note 120.

¹⁹⁰ *Supra* note 121.

¹⁹¹ *Supra* note 122.

¹⁹² AT&T applauded the FCC’s 2010 Order as a regulatory compromise. Following the 2014 NPRM, it threatened to pause its fiber rollout, but then reversed on that threat. It later denounced the 2015 Order as stemming from a 3-2 “partisan fight” and characterizing it as imposing “Ma Bell” regulations on 21st century technologies. See Jim Cicconi, *A Few Thoughts on Today’s FCC Vote*, AT&T PUBLIC POLICY BLOG (Dec. 21, 2010, 1:13PM), <http://www.attpublicpolicy.com/government-policy/a-few-thoughts-on-todays-fcc-vote/>; Chloe Albanesius, *AT&T to ‘Pause’ Gigabit Internet Rollout Until Net Neutrality Is Settled*, PC MAG (Nov. 12, 2014, 3:45PM), <http://www.pcmag.com/article2/0,2817,2472059,00.asp>; Thomas Gryta, *AT&T Backtracks on Threat to Halt Fiber Rollout*, THE WALL STREET JOURNAL (Nov. 26, 2016, 3:09PM), <http://www.wsj.com/articles/at-t-backtracks-on-threat-to-halt-fiber-rollout-1417032555>; Jim Cicconi, *Thoughts on Today’s Vote*, AT&T PUBLIC POLICY BLOG (Feb. 26, 2015, 11:52AM), <http://www.attpublicpolicy.com/broadband-classification/thoughts-on-todays-vote/>.

¹⁹³ Verizon executives expressed concerns related to Title II reclassification’s impact on broadband investment in December 2014 and January 2015. Following the FCC’s vote on the 2015 Order, Verizon issued a press release, formatted in Morse code and a skeumorphic typewriter font face, chastising the FCC for imposing “badly antiquated regulations” on broadband providers. Seemingly acquiescing, in March 2016 an executive published an online blog post in support of bright-line rules against blocking, throttling, or paid prioritization, as well as a modified general conduct standard. In an interview following the *U.S. Telecomm* ruling, the same executive described attempts at analyzing the impact of the 2015 Order on investment as “premature.” See Fran Shammo, *The Relationship Between Investment and Regulation*, VERIZON PUBLIC POLICY (Dec. 11 2014), <http://www.verizon.com/about/news/the-relationship-between-inve>; Libby Jacobson, *Verizon CFO Shammo reiterates the dangers of Title II for Jobs and Investment*, VERIZON PUBLIC POLICY (Jan. 22, 2015), <http://www.verizon.com/about/news/verizon-cfo-fran-shammo-reiterates-the-dangers-of-title-ii-for-jobs-and-inv>; Press Release, Verizon, Title II Regulations a ‘Net’ Loss for Innovation and Consumers (Feb. 26, 2016), available at: <http://www.verizon.com/about/news/fccs-throwback-thursday-move-imposes-1930s-rules-on-the-internet>; Craig Silliman, *Net Neutrality: A Path Forward*, VERIZON PUBLIC POLICY (Mar. 21, 2016), <http://www.verizon.com/about/news/net-neutrality-path-forward>; *Verizon’s Silliman on Creating Regulatory Balance for Special Access, Privacy, Net Neutrality*, FIERCE TELECOM (June 14, 2016), <http://www.fiercetelecom.com/special-reports/verizons-silliman-creating-regulatory-balance-special-access-privacy-net-ne>.

Recent anecdotes of broadband investment are similarly unhelpful. Despite the FCC's 2015 Order and subsequent privacy regulations, AT&T,¹⁹⁴ Comcast,¹⁹⁵ and Google¹⁹⁶ have all announced plans to invest in expanding their networks. Yet, these specific expansions may have been years in the making, especially considering the often-lengthy right-of-way and permitting processes broadband providers typically endure.¹⁹⁷

Ultimately, looking toward broader economic trends and projections reveals a bleaker reality in stark contrast with these notable instances of broadband expansion. Broadband providers' capital expenditures rose 8.7 percent in 2013.¹⁹⁸ Following the FCC's 2014 NPRM, however, this growth slowed to just four percent.¹⁹⁹ In 2015, following the FCC's Order, broadband capital expenditures actually *declined* by 0.4 percent,²⁰⁰ despite first and second quarter GDP growth and growing cable TV revenues alleviating cord-cutting concerns.²⁰¹ Economists predict that this decline will culminate in an average reduction in

¹⁹⁴ See Press Release, AT&T, AT&T Launches Ultra-Fast Internet Speeds in Indianapolis (July 8, 2016), available at: http://about.att.com/story/att_launches_ultra_fast_internet_speeds_in_indianapolis.html.

¹⁹⁵ See Press Release, Comcast, Comcast Begins Rollout of Gigabit Internet in Nashville (June 6, 2016), available at: <http://corporate.comcast.com/news-information/news-feed/gigabit-internet-nashville>.

¹⁹⁶ See Mark Bergen, *Google Fiber is Buying High-Speed Internet Provider Webpass to Expand its Reach in Cities*, RECODE (June 22, 2016, 7:46PM), <http://www.recode.net/2016/6/22/12009040/google-fiber-buys-webpass-high-speed-city-internet>.

¹⁹⁷ See, e.g., Berin Szoka, Matthew Starr, and Jon Henke, *Don't Blame Big Cable. It's Local Governments that Choke Broadband Competition*, WIRED (July 16, 2013, 9:30AM), <http://www.wired.com/2013/07/we-need-to-stop-focusing-on-just-cable-companies-and-blame-local-government-for-dismal-broadband-competition/>; Derrick Henry, *Mixed Signals on Cellphone Towers*, THE NEW YORK TIMES (Jan. 9, 2009), <http://www.nytimes.com/2009/01/11/nyregion/long-island/11RcellWE.html>.

¹⁹⁸ WSJ Editorial Board, *Tom Wheeler's Internet Debacle*, THE WALL STREET JOURNAL (Mar. 2, 2016, 7:24PM), <http://www.wsj.com/articles/tom-wheelers-internet-debacle-1456964653>.

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

²⁰¹ Hal Singer, *Does the Tumble in Broadband Investment Spell Doom for the FCC's Open Internet Order?*, FORBES (Aug. 25, 2015, 11:50PM), <http://www.forbes.com/sites/halsinger/2015/08/25/does-the-tumble-in-broadband-investment-spell-doom-for-the-fccs-open-internet-order/#626b58842627>.

broadband investment of between 17.8 and 31.7 percent per year.²⁰² This flight of investment dollars spells trouble not only for current and future broadband customers, but also for the workers hired to improve these networks.²⁰³ Thus, despite the FCC's contention that broadband investment will continue, driven by the supposed virtuous cycle, it will likely do so at an increasingly decreasing rate because of the 2015 Order.²⁰⁴ This result mirrors the European broadband market, which, due to stricter regulations, receives significantly fewer investment dollars, resulting in lower average speeds for European broadband customers.²⁰⁵

D. Imposing Title II on Broadband Providers Subjects an Increasingly Expanding and Competitive Market to Antiquated Monopoly Regulations

Title II regulation of the Internet subjects broadband providers to a regulatory framework originally designed for nationwide monopolist railroad and telephone companies.²⁰⁶ Perhaps this would be reasonable if the broadband market was actually a Ma Bell-style national monopoly. A case may have been made for, at worst, the existence of a cable-DSL duopoly near the time of the 2010 Order, when an FCC report found that 72

²⁰² Kevin A. Hassett and Robert J. Shapiro, *The Impact of Title II Regulation of Internet Providers on Their Capital Investments*, Sonecon (Nov. 2014), available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2540563.

²⁰³ Singer, *supra* note 201 (“Every million-dollar increase in broadband capex in a given year generates almost 20 jobs through the multiplier effect. Chase a billion dollars in investment from the broadband ecosystem with heavy-handed regulation and you can wipe out 20,000 jobs.”).

²⁰⁴ See John W. Mayo et. al, *Assessing the Economic Benefits and Costs of the FCC's Imposition of Title II Regulation*, Georgetown University McDonough School of Business Center for Business & Public Policy (Aug. 2015) at 8, available at: http://www.gcbpp.org/files/EPV/EPV_FCCsTitleIIOrder_82015.pdf (“[T]he Commission argues that demand and competition are key drivers of investment and that these factors will continue to drive demand even in the presence of Title II regulation. This argument is misplaced. The relevant policy question is not whether some economic factors will continue to drive investment, but whether the proposed regulation will reduce baseline levels of investment.”).

²⁰⁵ For example, in 2014, 82% of American households had access to 25 Mbps or faster broadband, while the similar figure for European households was 54%. Moreover, while 86% of American households had access to mobile 4G LTE coverage, only 27% of European households had similar access. See generally Christopher S. Yoo, Univ. of PA. Ctr. For Tech., Innovation, & Competition, *U.S. vs. European Broadband Deployment: What Do the Data Say?* (2014), available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2510854.

²⁰⁶ *Supra* note 18.

percent of American households had access to two or fewer Internet options offering at least 3 Mbps download and 768 Kbps upload speeds.²⁰⁷ Moreover, at this time, mobile broadband was still a nascent industry, with 3G coverage limitations and inferior speeds preventing mobile from truly competing with fixed residential broadband.²⁰⁸

Yet, over just a brief window of time, customer choice in fixed broadband grew tremendously. As of 2013, 65 percent of American households had access to *at least* 3 fixed providers offering *at least* 10 Mbps download and 1.5 Mbps upload speeds.²⁰⁹ When expanded to include fixed wireless providers,²¹⁰ this figure rises to 93 percent.²¹¹

Improvements in mobile broadband technologies have been even more astonishing. In 2011, Verizon²¹² and AT&T²¹³ began adopting LTE technologies on a mass scale. T-Mobile followed suit soon thereafter in 2013.²¹⁴ This was a crucial development, because

²⁰⁷ See Wireline Competition Bureau, FCC, *Internet Access Services: Status as of December 31, 2009* at 7 (Dec. 2010), available at: https://apps.fcc.gov/edocs_public/attachmatch/DOC-303405A1.pdf.

²⁰⁸ See, e.g., *id.* at 30.

²⁰⁹ Wireline Competition Bureau, FCC, *Internet Access Service: Status as of December 31, 2013* at 9 (Dec. 2013), available at: https://apps.fcc.gov/edocs_public/attachmatch/DOC-329973A1.pdf.

²¹⁰ Fixed wireless broadband providers, sometimes referred to as WISPs, or wireless ISPs, connect customers' homes to the Internet via LTE and other mobile technologies more typically used to connect smartphones and tablets to the Internet. While often subject to harsher data caps than fixed broadband, such services typically offer connection speeds that are faster than traditional DSL services. For example, Verizon advertises average download speeds of between 5 and 12 Mbps on its LTE-powered fixed wireless service. See *LTE Internet (Installed) FAQs*, Verizon Support, <http://www.verizonwireless.com/support/lte-internet-installed-faqs/> (last accessed July 18, 2016).

²¹¹ *Id.* at 10.

²¹² See Matt Hamblen, *Update: First LTE Phone, HTC Thunderbolt, Comes to Verizon on Thursday*, COMPUTERWORLD (Mar. 15, 2011, 9:04AM), <http://www.computerworld.com/article/2506593/smartphones/update--first-lte-phone--htc-thunderbolt--comes-to-verizon-on-thursday.html>.

²¹³ See Press Release, AT&T, *AT&T Announces Plan to Deliver Nation's Most Advanced Mobile Broadband Experience* (Jan. 5, 2011), available at: <http://www.att.com/gen/press-room?pid=18885&cdvn=news&newsarticleid=31477>.

²¹⁴ Marguerite Reardon, *T-Mobile launches 4G LTE Network*, CNET (Mar. 26, 2013, 8:49PM), <http://www.cnet.com/news/t-mobile-launches-4g-lte-network/>.

LTE is a substantially superior technology even compared to HSPA+. ²¹⁵ In a recent nationwide survey, the real-world 3G speeds of America’s top four mobile providers averaged between 0.64 and 3.48 Mbps. By comparison, their real-world LTE speeds averaged between 6.56 and 12.26 Mbps. ²¹⁶

Contrary to the FCC’s claims in the 2015 Order, ²¹⁷ recent data suggests that some customers have recognized the increasing parity between mobile and broadband providers and consequently opted to “cut the cord” of residential broadband service. ²¹⁸ On average, these customers tend to fall in more price-conscious demographics when compared to the average residential broadband subscriber. ²¹⁹ The increasing parity between fixed residential and mobile broadband, despite existing limitations like data caps, ²²⁰ affords price-sensitive

²¹⁵ HSPA+, sometimes derided as “3.5G” or “3.75G,” offers maximum theoretical speeds of around 42 Mbps. See *HSPA*, GSMA, <http://www.gsma.com/aboutus/gsm-technology/hspa>. LTE’s theoretical throughput, meanwhile, is often touted to be 100 Mbps or higher. See, e.g., Press Release, T-Mobile, T-Mobile Wideband LTE Blows by the Competition in New York (Dec. 15, 2014), available at: <https://newsroom.t-mobile.com/news-and-blogs/t-mobile-fastest-lte-network-wideband-new-york.htm>.

²¹⁶ *State of Mobile Networks: USA (Feb 2016)*, OPEN SIGNAL, <http://www.opensignal.com/reports/2016/02/usa/state-of-the-mobile-network/>.

²¹⁷ *2015 Order* at ¶ 9 (“[M]obile broadband is not a full substitute for fixed broadband connections.”).

²¹⁸ See *Home Broadband 2015*, *supra* note 162 at 9 (“Today 13% of adults rely on their smartphone for online access at home (that is, they have a smartphone but no home broadband subscription), compared with 8% in 2013 The increase in the ‘smartphone-only’ phenomenon largely corresponds to the decrease in home broadband adoption over this period.”); Giulia McHenry, *Evolving Technologies Change the Nature of Internet Use*, NATIONAL TELECOMMUNICATIONS & INFORMATION ADMINISTRATION (Apr. 19, 2016), <https://www.ntia.doc.gov/blog/2016/evolving-technologies-change-nature-internet-use> (“[T]hree-quarters of American households using the Internet at home in 2015 still used wired technologies for high-speed Internet service, including cable, DSL, and fiber-optic connections. However, this represents a sizable drop in wired home broadband use, from 82 percent of online households in July 2013 to 75 percent two years later. Over this same period, the data also shows that the proportion of online households that relied exclusively on mobile service at home doubled between 2013 and 2015, from 10 percent to 20 percent. The growth in online households that reported only using mobile Internet service to go online at home appears to have come at the expense of wired broadband connections.”).

²¹⁹ McHenry, *supra* note 218 (“The data shows 29 percent of online households with family incomes below \$25,000 only used mobile Internet service at home, compared with 15 percent of those households with incomes of \$100,000 or more.”).

²²⁰ For example, Verizon offers varying data caps ranging from 2 GB at \$35 per month to 24 GB at \$110 per month. See *Verizon Plan*, VERIZON, <http://www.verizonwireless.com/landingpages/verizon-plan/> (last accessed July 18, 2016).

users access to the Internet both at home and on the go, which they may not have otherwise chosen or been able to afford.²²¹

This increasingly expanding understanding of what constitutes the total broadband market, in addition to the aforementioned increase in choice among residential broadband providers, illustrates that the market for broadband services is increasingly, not decreasingly, competitive. Yet as explained previously, the FCC did not rely on market power analysis in its 2015 Order to justify its regulation of potentially user-hostile activity that would otherwise be rooted out by competition.²²² Instead, it cited excessive switching costs, which, it contends, prevent broadband customers from switching providers even when experiencing unsatisfactory service.²²³

Yet, actual data shows significant real-world evidence of customers switching between broadband providers. Average monthly churn across the top four mobile broadband providers was 1.56 percent during the first three quarters of 2014, representing only a slight drop from 1.83 percent during all of 2007.²²⁴ During the fourth quarter of 2014 alone, “approximately 10 million Americans changed their wireless provider.”²²⁵ Indeed,

²²¹ *Home Broadband 2015*, *supra* note 162 at 10 (“The increase in ‘smartphone-only’ adoption, along with the corresponding decline in home broadband subscriptions, captures two facets of contemporary society: rapid innovation in the information technology space and stagnant household incomes At the same time that innovation in information technology has transformed people’s communications patterns in the past decade, household incomes have declined relative to year 2000 levels Smartphones help fill the access gaps for some of these households, particularly as people increasingly see home broadband access as crucial in a variety of areas.”).

²²² *Supra* note 115.

²²³ *See 2015 Order* at ¶ 98 (“That many customers stay with their mobile wireless providers, despite expressing dissatisfaction with their current provider and despite the availability of alternate plans from other providers, suggests the presence of significant barriers to switching.”).

²²⁴ *Id.* at ¶ 98 n. 211.

²²⁵ Krista Witanowski, *Open Internet Order: Switching Realities*, CTIA (Mar. 18, 2015), <http://www.ctialatest.org/2015/03/18/open-internet-switching-realities/>.

according to the FCC's own 2014 Mobile Competition Report, switching costs for mobile broadband customers may have *decreased* in recent years,²²⁶ thanks in part to recent moves by mobile providers to, amongst other things, pay a customer's early termination fee at a competitor.²²⁷

E. Edge Providers Can Act and Have Acted as Gatekeepers Too

The FCC's primary concern with broadband providers throughout its 2010 and 2015 Orders was the theoretical capacity of broadband providers to act as gatekeepers between their customers and edge providers.²²⁸ Consequently, in its 2015 Order, the FCC elected to reclassify broadband service as a telecommunications service, subjecting broadband providers to Title II regulations. Crucially, however, the FCC did not opt to apply the same level of regulatory burden to edge providers.²²⁹ The resulting regulatory asymmetry of this choice is inherently unfair and does not accurately reflect the power dynamics between large edge providers and small ISPs.

²²⁶ See *In re Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Radio Services*, Seventeenth Report, WT Docket No. 13-135, ¶ 69 (“In the past, contract length, handset exclusivity, lack of interoperability were some factors that were highlighted as barriers to switching. Recently, the advent of no-contract plans, . . . newer premium models such as the new iPhone versions being available to more providers, and the FCC 700 MHz interoperability Order, may have *eased some of the switching barriers, and somewhat reduced switching cost[s].*”) (emphasis added), available at: https://apps.fcc.gov/edocs_public/attachmatch/DA-14-1862A1.pdf.

²²⁷ See, e.g., *id.* at ¶¶ 144-46; Press Release, T-Mobile, T-Mobile Unleashes Two New Industry-Rocking Moves with ‘The Un-contract’ and ‘Carrier Freedom’ (Mar. 18, 2015), available at: <https://newsroom.t-mobile.com/news-and-blogs/uncontract-carrier-freedom.htm>; Press Release, Sprint, Sprint Will Reimburse All Your Costs to Switch – Join Sprint’s 56 Million Customers Today (Mar. 13, 2015), <http://newsroom.sprint.com/news-releases/sprint-will-reimburse-all-your-costs-to-switch-join-sprints-56-million-customers-today.htm>.

²²⁸ See, e.g., *supra* note 116.

²²⁹ See generally 2014 NPRM at ¶¶ 54-60.

Indeed, large edge providers can act²³⁰ and have on numerous occasions acted as²³¹ gatekeepers, blocking broadband providers' customers from desired Internet content. Such gatekeeping largely blocked customers of small broadband providers from accessing desired streaming video content – even customers who did not subscribe to cable TV and opted to view video exclusively on streaming platforms like Hulu.²³² Beyond selectively blocking access to video content, edge providers have also tampered with news-gathering and news-displaying algorithms in order to muzzle disfavored political speech.²³³ This is especially

²³⁰ Comments of NTCA–The Rural Broadband Association, *In re Protecting and Promoting the Open Internet*, GN Docket No. 14-28 at 15-16, available at: <http://www.ntca.org/2014-federal-filings/071814-ntca-files-comments-on-net-neutrality-nprm-gn-14-28.html> (“[I]t is difficult to see a difference between a retail broadband ISP’s “incentive and ability to limit openness” and a Content/Edge Provider’s withholding of access to certain services, applications, or content. In fact, Content/Edge Provider blocking of otherwise freely available content upon an unduly discretionary whim is nothing less than a limitation on users’ access to the content of their choice, and as such, has as much adverse impact on consumer demand for broadband service as the theoretical behavior that triggered this proceeding. Consumers displeased with the prospect that the online content of their choice may not be available due to a dispute between a retail ISP and a Content/Edge Provider may see less need to keep, or utilize, their broadband subscription. This resulting depression in “end user demand, which then threatens broadband deployment,” is at the very heart of this proceeding.”).

²³¹ Comments of American Cable Association, *In re Protecting and Promoting the Open Internet*, GN Docket No. 14-28, 10-127 at 18-19, available at: <https://ecfsapi.fcc.gov/file/7521683230.pdf> (“In the past five years, . . . there have been several examples of Internet video programming providers blocking or threatening to block access to content otherwise made freely available to Internet users to those Internet users served by select broadband ISPs where the programmers were simultaneously engaged in carriage disputes with the same providers in their capacity as MVPDs. In 2009, Viacom threatened to block access to Time Warner Cable broadband subscribers from accessing its web-based content, including such popular sites as MTV.com and Nick.com. In 2010, News Corp. threatened to block access to Cablevision Internet users from accessing Fox websites, including Hulu.com, which News Corp. partially owned, as part of Fox’s on-going retransmission dispute with Cablevision Similarly, in 2013, CBS elected to block Time Warner Cable and Bright House Network broadband subscribers in New York as part of their dispute over retransmission rights Most recently, in 2014, following unsuccessful cable programming carriage negotiations, Viacom retaliated with the punitive action of denying access to content otherwise made freely available on its websites to those broadband Internet subscribers served by dozens of *smaller cable and broadband providers* who refused to sign onto renewal contracts seeking exorbitant price increases for Viacom cable programming networks with low ratings and minimal viewer interest. Viacom moved to block a select group of broadband Internet subscribers regardless of whether they subscribed to the operator’s video offerings or not.”) (citations omitted) (emphasis added).

²³² *Id.*

²³³ Michael Nunez, *Former Facebook Workers: We Routinely Suppressed Conservative News*, GIZMODO (May 9, 2016 9:10AM), <http://gizmodo.com/former-facebook-workers-we-routinely-suppressed-conser-1775461006>.

worrisome given the hyper-concentration of power in just a few dominant edge providers on the Internet.²³⁴

Ultimately, the resulting regulatory asymmetry of the 2015 Order does not prohibit Internet gatekeeping outright. Instead, it only serves to prohibit the theoretical gatekeeping ability of large national broadband providers, leaving smaller broadband providers subject to the whims of increasingly powerful edge providers' documented throttling,²³⁵ blocking,²³⁶ and other abusive tactics.

Conclusion

In a recent book, Adam Thierer of the Mercatus Institute championed the idea of “permissionless innovation.”²³⁷ He argued that technological entrepreneurs should be free to experiment and to innovate, unbounded by regulatory pessimists²³⁸ and their innovation-stymieing regulations. He demonstrated how deregulatory FCC policy in the 1990s

²³⁴ See, e.g., James B. Stewart, *Facebook Has 50 Minutes of Your Time Each Day. It Wants More*, THE NEW YORK TIMES (May 5, 2016), <http://www.nytimes.com/2016/05/06/business/facebook-bends-the-rules-of-audience-engagement-to-its-advantage.html>; Jacob Kastrenakes, *YouTube is Dominating TV Networks with Mobile Alone*, THE VERGE (Apr. 29, 2015, 8:34PM), <http://www.theverge.com/2015/4/29/8518535/youtube-beating-tv-networks-with-mobile-alone>; Todd Spangler, *Netflix Bandwidth Usage Climbs to 37% of Internet Traffic at Peak Hours*, VARIETY (May 28, 2015), <http://variety.com/2015/digital/news/netflix-bandwidth-usage-internet-traffic-1201507187/>.

²³⁵ See, e.g., Ryan Knutson and Shalini Ramachandran, *Netflix Throttles its Videos on AT&T, Verizon Networks*, THE WALL STREET JOURNAL (Mar. 24, 2016, 10:55PM), <http://www.wsj.com/articles/netflix-throttles-its-videos-on-at-t-verizon-phones-1458857424>.

²³⁶ See, e.g., Karl Bode, *Viacom Blocking Suddenlink Broadband Users from Online Content*, DSLREPORTS (Oct. 2, 2014, 11:26AM), <http://www.dslreports.com/shownews/Viacom-Blocking-Suddenlink-Broadband-Users-From-Online-Content-130706>.

²³⁷ See ADAM THIERER, PERMISSIONLESS INNOVATION: THE CONTINUING CASE FOR COMPREHENSIVE TECHNOLOGICAL FREEDOM 9 (revised ed. 2016), available at: <http://mercatus.org/sites/default/files/Thierer-Permissionless-revised.pdf> (“How is it that in the span of just a few decades we have witnessed the greatest explosion in information availability and human connectedness that the world has ever known? The answer comes down to two words: permissionless innovation Permissionless innovation is about the creativity of the human mind to run wild in its inherent curiosity and inventiveness. In other words, permissionless innovation is about freedom.”).

²³⁸ See *id.* at 28 (“The precautionary principle generally holds that, because new ideas or technologies could pose some theoretical danger or risk in the future, public policies should control or limit the development of such innovations until their creators can prove that they won’t cause any harms.”).

unleashed such innovation, jump-starting the vibrant and competitive Internet ecosystem we enjoy today.²³⁹ Ultimately, he posited that regulation of innovative businesses must be supported by evidence of actual demonstrable harm,²⁴⁰ not theoretical boogeymen, and that the fruits of these regulations – positive or negative – should be the measure by which we judge their successfulness.²⁴¹

Sadly, such thinking has not transpired at the current FCC. In an ideal world, the FCC, taking a cue from the FTC, would only impose regulations on broadband providers when doing so prevents clear consumer harms. The FCC would consequently allow consumer welfare-enhancing innovation and competition in the broadband marketplace to flourish, reserving regulation for only those specific instances wherein market intervention would prevent actual harm.²⁴²

Yet, by issuing the 2015 Open Internet Order, the FCC charted a starkly different course. In accordance with President Obama’s request,²⁴³ the FCC classified the Internet as a telecommunications service,²⁴⁴ exposing it to a barrage of antiquated regulations originally designed to police monopoly industries of yore.²⁴⁵ Under the authority of this newfound

²³⁹ *See id.* at 12-15.

²⁴⁰ *Id.* at 8 (“Policymakers should not impose prophylactic restrictions on the use of new technologies without clear evidence of actual, not merely hypothesized, harm.”).

²⁴¹ *Id.* at 13 (“[P]ublic policies should never be judged by intentions but rather by their actual real-world results.”) (citing *Notable & Quotable: Milton Friedman*, THE WALL STREET JOURNAL (Oct. 6, 2015, 6:07PM), <http://www.wsj.com/articles/notable-quotable-milton-friedman-1444169267>).

²⁴² *See* Joshua D. Wright, *NN House Antitrust Hearing* at 87 (“The case for antitrust over regulation is as simple as this: The general economic view is these types of contracts across many industries help consumers. What the antitrust *ex post* approach allows you to do is have the benefits of those contracts when they help consumers and reserve enforcement for those instances where we can find, and we do, abuses of market power. It allows consumers to have both.”).

²⁴³ *Supra* note 105.

²⁴⁴ *2015 Order*.

²⁴⁵ *Supra* note 18.

classification, the FCC prohibited blocking, throttling, and paid prioritization of content traveling over broadband networks; enacted a vague²⁴⁶ new general conduct standard; and announced sweeping new privacy regulations, turning the traditional pro-consumer opt-out privacy model on its ear.²⁴⁷

Will the FCC improve the American broadband market by imposing these regulations? The available evidence tells us no. The FCC will raise broadband prices through new USF contributions and burdensome privacy regulations.²⁴⁸ It will prevent broadband providers from offering low-cost²⁴⁹ and high-priority plans²⁵⁰ by prohibiting content blocking, throttling, and prioritization. It will imperil innovative competition like zero rating²⁵¹ and suppress network investment²⁵² through regulatory uncertainty. It will treat the competitive broadband industry like a collection of regional monopolists, ignoring evidence of growing residential broadband choice and mobile parity.²⁵³ Finally, it will establish a system of regulatory asymmetry, wherein a myopic focus on large national broadband providers' theoretical gatekeeping abilities will leave smaller broadband providers prey to the documented abuses of increasingly powerful edge providers.²⁵⁴

²⁴⁶ *February 2015 Open Commission Meeting*, FEDERAL COMMUNICATIONS COMMISSION (Feb. 26, 2015), available at: <https://www.fcc.gov/news-events/events/2015/02/february-2015-open-commission-meeting> (166:12-166:32) (“As I said in my statement, you know, we don’t really know [what the general conduct standard will be]. No blocking, no throttling, no fast lanes – those can be bright-line rules because we know about those issues. But we don’t know where things go next.”).

²⁴⁷ *See supra* section III.

²⁴⁸ *See supra* section IV-A.

²⁴⁹ *See supra* section IV-B-1.

²⁵⁰ *See supra* section IV-B-2.

²⁵¹ *See supra* section IV-C-1.

²⁵² *See supra* section IV-C-2.

²⁵³ *See supra* section IV-D.

²⁵⁴ *See supra* section IV-E.

In its 2014 NPRM, the FCC noted, “the Internet has been, and remains to date, the preeminent 21st century engine for innovation and the economic and social benefits that follow.”²⁵⁵ Yet, rather than unleash American broadband, this same FCC would instead prefer to restrict it by chasing theoretical harms. In doing so, the FCC endangers the innovation, investment, and competition that helped make early American broadband the envy of the world. In the end, through its recent regulatory moves, the FCC will harm, not help, America’s Internet future.

²⁵⁵ 2014 NPRM at ¶ 1.