
THE USE AND ABUSE OF “LIGHT-TOUCH” INTERNET REGULATION

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ABSTRACT

The Federal Communications Commission (“FCC”) recently repealed network neutrality regulations. In doing so, the agency claimed to be restoring the traditional “light-touch” deregulatory approach that successfully guided Internet policy for decades. Today, this version of history—what I call the light-touch narrative—provides a key normative foundation for deregulatory policy. It also influences current interpretations of positive law. Indeed, the FCC’s legal authority to repeal network neutrality rules relies on statutory interpretations reflecting these historical assumptions.

This Article contends, however, that the light-touch narrative has become misleading, because it relies on flawed understandings of the Internet’s history. It assumes that today’s Internet access providers are the legal equivalents of earlier data and dial-up service providers. As a result, policymakers cite the deregulation of these earlier entities to justify deregulating modern access providers—an approach that is both normatively and legally problematic. To illustrate these problems, this Article examines the origins and evolution of light-touch Internet regulation. It then explores the legal and policy implications of this history, particularly with respect to the FCC’s recent network neutrality repeal and its legal challenges.

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INTRODUCTION

In May 2017, the Federal Communications Commission (“FCC”) opened a rulemaking proceeding entitled “Restoring Internet Freedom.”¹ It proposed to repeal the network neutrality rules adopted in 2015 during the Obama Administration.² In December 2017, it followed through on this proposal and adopted a final order repealing virtually all of the rules adopted in 2015.³

Interestingly, both the initial notice and the final order opened with a story about the history of Internet regulation. The moral of the story was that the Internet flourished because the government had left it alone. The FCC’s opening two lines stated, “Americans cherish a free and open Internet. And for almost twenty years, the Internet flourished under a light-touch regulatory approach.”⁴ This approach, the FCC explained, fueled markets and innovation for many years.⁵ The modern Internet is thus a vindication of the government’s tradition of restraining itself in this field.

To illustrate this tradition, the FCC’s story summarized a series of deregulatory policy decisions dating back to the 1960s.⁶ In particular, it focused on the 1996 Telecommunications Act (“1996 Act”),⁷ which codified the “successful bipartisan framework that created the free and open Internet and, for twenty years, saw it flourish.”⁸ Things suddenly changed, however, in 2015

¹ Restoring Internet Freedom, 32 FCC Rcd. 4434 (proposed May 18, 2017) [hereinafter 2017 Internet Freedom Notice] (proposing to repeal Obama-era network-neutrality regulatory rules by arguing that government regulatory restraint is responsible for success of Internet).

² Protecting and Promoting the Open Internet, 30 FCC Rcd. 5601, 5604-12 (2015) (report and order on remand, declaratory ruling, and order) [hereinafter 2015 Title II Order] (establishing regulations against blocking, throttling, and paid prioritization to guarantee open Internet).

³ Restoring Internet Freedom, 33 FCC Rcd. 311, 312-13 (2017) (declaratory ruling, report and order, and order) [hereinafter 2017 Repeal Order] (following through with repeal of network-neutrality regulations).

⁴ 2017 Internet Freedom Notice, *supra* note 1, at 4435. Similar language appears in the final order. *See* 2017 Repeal Order, *supra* note 3, at 312 (praising “light-touch framework under which a free and open Internet underwent rapid and unprecedented growth for almost two decades”).

⁵ 2017 Internet Freedom Notice, *supra* note 1, at 4435 (“During [light-touch regulation], the Internet underwent rapid, and unprecedented, growth. Internet service providers (“ISPs”) invested over \$1.5 trillion in the Internet ecosystem and American consumers enthusiastically responded.” (citations omitted)).

⁶ Both decisions—the initial notice and the final order—open with this history. *See* 2017 Repeal Order, *supra* note 3, at 312-18 (detailing history of Internet regulation, arguing that from 1996, Congress has ordered FCC to take light-touch approach, which Obama-era regulations ignore); 2017 Internet Freedom Notice, *supra* note 1, at 4435-41 (detailing history of Internet regulation, and arguing success of Internet is due to lack of regulation).

⁷ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified in scattered sections of 47 U.S.C.).

⁸ 2017 Internet Freedom Notice, *supra* note 1, at 4435; 2017 Repeal Order, *supra* note 3,

during the later years of the Obama Administration. For the first time in history, the FCC made an “abrupt shift” away from light-touch approaches and instead adopted “heavy-handed utility-style regulation of broadband Internet”⁹ Accordingly, the FCC’s new proceeding—Restoring Internet Freedom—was necessary to restore “the light-touch framework” that had proven so successful over several decades.¹⁰

This version of history—which I call the light-touch narrative—is a familiar one in Internet policy circles.¹¹ The narrative plays a key role in today’s policy debates in two important respects.¹² First, it strengthens the normative justifications for deregulatory measures.¹³ Second, the narrative is also a source of positive law, because this version of history influences the interpretation of the various statutes, cases, and regulatory precedent that collectively form the bedrock of the FCC’s legal authority.¹⁴

This Article contends, however, that today’s light-touch narrative has become misleading for a simple reason—it is based on bad history.¹⁵ The narrative is correct that the Internet and its ancestors (“data services”) have been largely unregulated since their birth.¹⁶ However, it is mistaken, about what traditionally constituted “the Internet.” To be precise, today’s narrative conflates the Internet with *local access* to the Internet.¹⁷ These services are fundamentally different,

at 317.

⁹ 2017 Repeal Order, *supra* note 3, at 312, 317; *see also* 2017 Internet Freedom Notice, *supra* note 1, at 4435, 4441 (“In 2015, the Commission abruptly departed from its prior posture and classified broadband Internet access service as a telecommunications service subject to public-utility regulations under Title II.”).

¹⁰ *See* 2017 Repeal Order, *supra* note 3, at 312 (“We reverse [the 2015] misguided and legally flawed approach and restore broadband Internet access service to its Title I information service classification.”); 2017 Internet Freedom Notice, *supra* note 1, at 4441 (“[W]e propose to reinstate the information service classification of broadband Internet access service and return to the light-touch regulatory framework first established on a bipartisan basis during the Clinton Administration.”).

¹¹ *See infra* notes 53-55 (chronicling examples in twenty-year history of use of “light-touch” in FCC and congressional proceedings).

¹² *See infra* notes 62-88 and accompanying text (describing 2017 Repeal Order’s version of history).

¹³ *See infra* notes 73-86 and accompanying text (describing how FCC used misleading selection of facts to create normative narrative).

¹⁴ *See infra* notes 91-102 and accompanying text (arguing that FCC conflated regulated Internet access and congressional understanding of unregulated Internet and interactive services to deregulate broadband access).

¹⁵ *See infra* Part I (arguing that FCC’s narrative is not factually incorrect but misleading).

¹⁶ *See infra* notes 106-24 and accompanying text (describing that unregulated dial-up Internet access providers were dependent upon regulated phone lines to provide service).

¹⁷ *See infra* notes 101-30 and accompanying text (arguing that FCC ignores Congressional understanding of access, not as access to ISPs, but access to computer network that comprise Internet).

just as roads are different than final destinations.¹⁸ For instance, Netflix is different than the physical wiring on your street that enables you to access Netflix. Today’s narrative, however, too often assumes that modern broadband access providers (e.g., Verizon and Comcast) are the legal and technological equivalents of entities such as America Online (“AOL”) and other early dial-up and data providers. In a type of sleight of hand, the narrative cites the deregulation of these older computer services (which was uncontroversial) to justify the deregulation of modern *access* services (which is).¹⁹ In short, the traditional deregulation of *A* now justifies the modern deregulation of *B*.

This Article aims to clarify this history by exploring the original understanding of light-touch deregulatory approaches. Its ultimate conclusion is that the traditional non-regulation of the Internet does not justify the non-regulation of *access* service, which is—and has always been—a fundamentally different animal.

The Article begins by establishing the importance of the light-touch narrative in modern policy debates.²⁰ In particular, it establishes how this version of history has been incorporated into positive law, especially the current interpretations of the 1996 Act.²¹ The problem, again, is not the claim that Internet technologies have been lightly regulated. The problem is that today’s narrative too often lumps together access providers and other Internet technologies.

To better understand these modern problems, the Article next examines the origins and original understanding of light-touch deregulatory policies.²² It concludes that these policies originally had clear limitations that are currently overlooked. In the 1960s, new computer services emerged that could only be reached through the telephone network.²³ These services were dynamic and competitive, and policymakers decided—correctly—to leave them alone.²⁴ This

¹⁸ One brief challenging the FCC’s deregulation used a similar analogy of roads and destinations such as hotels. Joint Brief for Petitioners Mozilla Corp. et al. at 14-16, *Mozilla Corp. v. FCC*, No. 18-1051 (D.C. Cir. Aug. 20, 2018) [hereinafter *Mozilla Brief*] (challenging FCC’s deregulation using similar analogy of roads and destinations such as hotels).

¹⁹ See *infra* Part III (discussing improper application of light-touch regulation theory to modern broadband access services).

²⁰ See *infra* Part I (explaining meaning of network neutrality, to whom it applies, and narrative created by FCC to generate misleading normative and legal foundation).

²¹ See *infra* notes 91-98 and accompanying text (arguing that FCC used its misleading retelling of history of light-touch Internet regulation to justify applying same light touch to Internet access providers as to Internet itself).

²² See *infra* Part II (explaining that “light-touch” policies for access providers originated because early computer network market, including Internet connection, was competitive, and Congress wanted to maintain competitiveness).

²³ See *infra* notes 106-09 and accompanying text (arguing that pre-Internet data services and dial-up Internet relied upon heavily regulated telephone infrastructure, imposing implicit limitations on access providers).

²⁴ See *infra* notes 104-29 and accompanying text (explaining that data services were

policy choice, however, applied only to the *new* services—not to the older telephone networks that provided local access.²⁵ Virtually every light-touch policy prior to the year 2000 was limited—and understood to be limited—to these new data and Internet services alone.²⁶ To support this claim, this Article examines decades of policy decisions that are often cited to justify the light-touch narrative—everything from the *Computer Inquiries*²⁷ proceedings in the mid-1960s to the infamous *Stevens Report* in 1998.²⁸ Each one reflects these limitations.

Next, it examines how light-touch policies evolved with the arrival of high-speed broadband in the late 1990s and early 2000s.²⁹ In this period, light-touch rhetoric expanded for the first time to include access services (i.e., deregulatory policy extended to the roads rather than to the destinations alone). The key decision came in 2002 when the FCC formally deregulated cable high-speed broadband access in the *2002 Cable Modem Order*,³⁰ which the Supreme Court upheld in *National Cable & Telecommunications Ass'n v. Brand X Internet Services*.³¹ In justifying these decisions, both the FCC and the Court relied heavily on the concept that broadband access was inextricably “integrated” with other Internet services into one unified service—just as blue and red lose their individual identities when integrated into purple.³² Notably, the concept of

competitive, and cost of entry was relatively low, calling for different regulatory framework).

²⁵ *See id.*

²⁶ *See infra* Part I (discussing limitations of light-touch philosophy on early data services).

²⁷ These proceedings lasted decades and are voluminous, but this Article most closely examines the most well-known and important one known as *Computer II*. Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry), 77 F.C.C.2d 384, 417 (1980) (final decision) [hereinafter *Computer II Final Decision*] (establishing division between “common carrier transmission services from those computer services which depend on common carrier services in the transmission of information”).

²⁸ FCC, FEDERAL-STATE JOINT BOARD ON UNIVERSAL SERVICE: REPORT TO CONGRESS, 13 FCC Rcd. 11501, 11610 (1998) [hereinafter *STEVENS REPORT*].

²⁹ *See infra* Part III (critiquing deregulatory policies’ expansion to local physical access networks via contamination theory).

³⁰ Inquiry Concerning High-Speed Access to the Internet Over Cable & Other Facilities, 67 Fed. Reg. 18,907, 18,907 4802 (2002) (declaratory ruling and notice of proposed rulemaking) [hereinafter *2002 Cable Modem Order*] (“[We conclude] that cable modem service, as it is currently offered, is properly classified as an interstate information service, not as a cable service, and that there is no separate offering of telecommunications service.”).

³¹ 545 U.S. 967 (2005) (holding that FCC’s conclusion that broadband access providers are exempt from mandatory common-carrier regulation is lawful construction of the 1996 Act).

³² *See id.* at 990 (holding “it reasonable to describe the two [services] as a single, integrated offering”); *infra* Part III (explaining that Court’s decision relied on contamination theory, accepting that broadband could reasonably be seen as inextricably integrating telecommunications and information services).

integrated services is also a key legal foundation for the FCC’s more recent repeal of network neutrality rules.³³

The expansion of these deregulatory policies to broadband *access* is problematic in several respects. First, the original decisions of this era were premised on misunderstandings of the Internet.³⁴ Contemporary policymakers often treated new broadband access providers as the legal equivalent of older dial-up Internet Service Providers (“ISPs”).³⁵ For instance, both the FCC and the Supreme Court justified their policy decisions by citing the virtues of higher-layer services such as email and file transfer services that were completely distinct.³⁶ Accordingly, the initial expansion of light-touch concepts to access networks is founded upon the fundamental mistake of equating access service with the Internet itself.

The same mistake applies to arguments that broadband access was “inextricably” integrated with these traditional computer services. The very concept of intertwined services arose from—and only makes sense within—the earlier age of data, dial-up, and resale services.³⁷ As this Article illustrates, the concept actually stems from an earlier legal concept known as “contamination theory.”³⁸ It originally emerged to protect data and computer services from common carrier regulation. It was, however, *never* understood to apply to local access facilities owned (at that time) by telephone companies.³⁹ Like the dinosaurs from *Jurassic World*, the concept is being reengineered for a new world in which it does not belong.⁴⁰

A second problem is that the expansion of deregulatory policy was premised on conditions that no longer apply. Thus, even assuming the FCC’s 2002 *Cable Modem Order* was initially sound, it has since become anachronistic.⁴¹ At the

³³ See *infra* notes 94-98 and accompanying text (arguing FCC is incorrect when it intertwines broadband access providers with Internet, as access provider offers no destination services users seek).

³⁴ See *infra* Section III.B (arguing that policymakers premised their understandings on outdated view of networks and Internet).

³⁵ *Id.* (arguing that FCC saw broadband access providers as simply another, faster version of dial-up).

³⁶ See *infra* Part III (arguing FCC accepted cable industry arguments that industry provided curated content different from telephone services).

³⁷ See *infra* Section II.A (arguing that because historical data and dial-up Internet providers offered bundled services, such as email and chatrooms in dial-up context, intertwined label was appropriate).

³⁸ See *infra* note 148 and accompanying text (explaining that Internet access providers that offered enhanced services, i.e., resold common carrier services with Internet access, were not twice regulated as common carriers).

³⁹ See *infra* notes 154-62 and accompanying text (arguing that FCC previously rejected expanding contamination theory in 1995, stating faster packet transfer service was nevertheless basic, not enhanced transport service for purpose of regulation).

⁴⁰ JURASSIC WORLD (Universal Pictures 2015).

⁴¹ See *infra* Part III (arguing that in 2002 most access providers still relied upon telephone

turn of the century, ISPs and their markets were very different. ISPs did not own local access facilities (thus the need to “dial up” the server), and they marketed themselves as providers of content such as portals, email, and chat rooms. By contrast, today’s access providers market themselves primarily as transmission conduits, emphasizing their speed and reliability—just as traditional common carriers did.⁴² ISP markets were also extremely competitive at the time. Today, by contrast, high-speed broadband access is extremely uncompetitive, just as economic theory would predict, given it involves enormous capital expenditures and other barriers to entry.⁴³

Finally, the narrative is also misleading because broadband access remained regulated (to varying degrees) throughout the past twenty years. The FCC in both the Bush and Obama administrations adopted policies and initiated enforcement actions to prevent various actions such as blocking and discrimination by access providers.⁴⁴ The FCC’s near-complete abandonment of oversight in 2017 is therefore not the conservative restoration of the status quo that its light-touch narrative suggests, but rather a sharp break with history.

Thus, the light-touch narrative is a misleading story. It is true that the Internet depended on light-touch regulation. “The Internet,” however, is something different than local access to the Internet—a service which was traditionally, and properly, a regulated common carrier service with distinct economic characteristics. In truth, the Internet’s success depended on light-touch approaches *combined with* common carriage norms that protected and nurtured these new services for decades. The light-touch version of history misses this second part of the story.

lines, and even if broadband was initially deregulated to encourage fledgling industry, those market conditions no longer apply).

⁴² 2015 Title II Order, *supra* note 2, at 5755-57 (“Broadband Internet access service is marketed today primarily as a conduit for the transmission of data across the Internet.”); *see also infra* notes 302-03 and accompanying text (arguing that policymakers in 2002 were informed by incorrect assumption that ISPs would continue to provide content and other higher level services).

⁴³ *See* Jon Brodtkin, *FCC Report Finds Almost No Broadband Competition at 100 Mbps Speeds*, ARS TECHNICA (Feb. 12, 2018, 1:15 PM), <https://arstechnica.com/information-technology/2018/02/fcc-report-finds-almost-no-broadband-competition-at-100mbps-speeds> [<https://perma.cc/R37K-HWTJ>] (reporting that forty-three percent of Americans had either one or zero broadband internet access providers serving their area); *see also* Richard S. Whitt, *Evolving Broadband Policy: Taking Adaptive Stances to Foster Optimal Internet Platforms*, 17 COMM.LAW CONSPECTUS 417, 434 (“Given the twin economic characteristics of broadband—high fixed costs and reliance on public resources—it is no surprise that there is not always an ample supply of [broadband access], and that this supply is provided by relatively few firms.”).

⁴⁴ *See infra* Section III.B.3 (arguing that some FCC oversight of broadband remained between 2002 and 2015, citing FCC action against Comcast blocking BitTorrent traffic as example).

This Article contributes to the literature in several ways. Most importantly, it clarifies the historical origins and limitations of the light-touch narrative. In particular, it illustrates the original understandings surrounding “contamination theory,” which plays such an important role even today. The Article does so by relying on contemporary primary sources that are often overlooked in the literature, especially regulatory comments and legislative history. This Article also provides a novel examination of how the light-touch narrative mutated in the early 2000s in problematic ways to encompass local access networks. Finally, this history provides a novel lens through which to view the legal challenges to the FCC’s repeal of network neutrality regulations.

Part I describes the importance of the light-touch narrative and how it became misleading. Part II explores the origins of light-touch policies from the 1960s to the early 2000s and illustrates their implicit limitations. Part III explores how light-touch narratives changed in problematic ways with the rise of high-speed broadband in the early 2000s. Part IV explores the legal and policy implications of this history.

I. AN OVERVIEW OF LIGHT-TOUCH POLICY APPROACHES

The term light-touch refers to policy approaches that rely on private markets more than regulation.⁴⁵ The light-touch narrative, in turn, is a story about the Internet’s regulatory history, in which deregulatory policy plays an important role. As a descriptive matter, the narrative makes the historical claim that the Internet thrived because the government stayed out of the way and allowed market forces to shape it.⁴⁶ The relevant laws, such as the 1996 Act, not only reflect this tradition of restraint, they affirmatively require it.⁴⁷ Normatively,

⁴⁵ Barbara Esbin & Adam Marcus, “*The Law Is Whatever the Nobles Do*”: *Undue Process at the FCC*, 17 *COMMLAW CONSPPECTUS* 535, 544-45 (2009) (providing examples of using “light touch” measures to create “minimal regulatory environment”); Jonathan L. Zittrain, *The Generative Internet*, 119 *HARV. L. REV.* 1974, 2001 (2006) (explaining that Internet regulators have responded hesitantly, or with light touch, even when they had more heavy-handed options).

⁴⁶ See 2017 Repeal Order, *supra* note 3, at 312; 2015 Title II Order, *supra* note 2, at 5603; George S. Ford & Lawrence J. Spiwak, *Tariffing Internet Termination: Pricing Implications of Classifying Broadband As a Title II Telecommunications Service*, 67 *FED. COMM. L.J.* 1, 2 (2014) (“Since the early days of the Internet, [FCC] has taken a largely ‘hands off’ regulatory approach to broadband Internet services—a light touch widely-held to be a key contributor to the rapid innovation, diffusion and adoption of Internet services in the United States.”); Ajit Pai, *The Story of the FCC’s Net Neutrality Decision and Why It Won’t Stand Up in Court*, 67 *FED. COMM. L.J.* 147, 148 (2015) (“Starting almost twenty years ago, a bipartisan consensus favored an open Internet. A Democratic President and Republican Congress enshrined in the Telecommunications Act of 1996 the principle that the Internet should be a ‘vibrant and competitive free market unfettered . . . by Federal or State regulation.’”).

⁴⁷ 2017 Repeal Order, *supra* note 3, at 312, 314 (“In the 1996 Act, intended to ‘promote competition and reduce regulation,’ Congress drew a line between lightly regulated ‘information services’ and more heavily regulated ‘telecommunications services.’”); Richard

advocates also use the narrative to justify deregulatory policy preferences. The specific argument is that government restraint should be continued because of both its economic logic and its long history of success.⁴⁸ Even in Democratic administrations, FCC commissioners cited the rhetoric of light-touch to justify their policies.⁴⁹ Indeed, the phrase “light-touch” itself has been invoked for nearly twenty years in various FCC and congressional proceedings.⁵⁰

The FCC’s recent repeal of network neutrality requirements exemplifies both the narrative and its policy impact.⁵¹ As background, network neutrality is a nondiscrimination principle.⁵² The underlying policy rationale is to preserve the openness of the Internet—a concept that generally refers to control and permission.⁵³ An open platform, for instance, means that the platform owner

E. Wiley & Thomas J. Navin, *Reflecting on Twenty Years Under the 1996 Telecommunications Act*, 68 FED. COMM. L.J. 74, 75 (2016) (“[T]he greatest success of the 1996 Act has been its enduring light-touch regulatory approach to broadband Internet access.”).

⁴⁸ See Preserving the Open Internet, Broadband Industry Practices, 24 FCC Rcd. 13064, 13159 (2009) (McDowell, Comm’r, dissenting in part) (notice of proposed rulemaking) (“[T]he Internet is perhaps the greatest deregulatory success story of all time.”).

⁴⁹ See 2015 Title II Order, *supra* note 2, at 5603 (arguing that “carefully-tailored” approach to broadband access providers detailed in report was “consistent with the ‘light-touch’ regulatory framework that has facilitated the tremendous investment and innovation on the Internet”); Framework for Broadband Internet Access, 25 FCC Rcd. 7866, 7914 (2010) (notice of inquiry) (Statement of Chairman Julius Genachowski) (pledging to “continue the same light-touch approach to broadband access policy that the agency has pursued for the past decade”).

⁵⁰ *Voice Over Internet Protocol (VoIP): Hearing Before the Comm. on Commerce, Science & Transp.*, 108th Cong. 3-4 (2004) (statement of Michael K. Powell, Chairman, FCC) (“We have begun laying the foundation for a ‘light touch’ regulatory environment for Internet voice services.”); Comcast Corporation, Comment Letter on Framework for Broadband Internet Service, at i (July 15, 2010) [hereinafter Comcast 2010 Comments], [<https://perma.cc/ARW2-E47C>] (noting FCC’s “longstanding, bipartisan, consensus, ‘light-touch’ policy approach to regulating broadband Internet service”); DEBORAH A. LATHEN, FCC, BROADBAND TODAY 6, 34 (1999) (noting cable opposition to even “light touch” regulation, and recognizing that “the Commission’s longstanding de-regulatory policy toward enhanced services, generally, and broadband services, particularly, has contributed to the Internet’s phenomenal growth”).

⁵¹ See 2017 Repeal Order, *supra* note 3, at 312-13 (referencing both narrative: “[w]e take several actions in this Order to restore Internet freedom[;]” and policy changes: “we end utilitystyle regulation of the Internet in favor of the market-based policies necessary to preserve the future of Internet freedom”).

⁵² See Rob Frieden, *Assessing the Merits of Network Neutrality Obligations at Low, Medium and High Network Layers*, 115 PENN ST. L. REV. 49, 49 n.2 (2010) (“Network neutrality refers to the imposition of nondiscrimination, transparency and other requirements on ISPs designed to foster a level competitive playing field among content providers . . .”).

⁵³ See Preserving the Open Internet, Broadband Industry Practices, 25 FCC Rcd. 17905, 17907 (2010) (report and order) [hereinafter 2010 Open Internet Order] (describing ways Internet is free, such as consumer ability to make choices regarding use of Internet and consumer not needing permission to use Internet in various ways); Philip J. Weiser, *The Next*

does not control the uses of the platform.⁵⁴ The platform is thus permission-less, which has important economic and social implications.⁵⁵ Economically, openness creates low barriers to entry for new entrants, which helps spur innovation.⁵⁶ Facebook, for instance, did not have to pay or negotiate with Comcast before introducing its service. Comcast’s cable television platform, by contrast, is closed in that television networks must obtain permission from Comcast before it can offer content on the platform. Socially, openness furthers important speech values by ensuring permission-less access for speakers.⁵⁷ Even opponents of network neutrality requirements generally support openness as a policy goal—they simply disagree about whether federal rules are necessary to protect it.⁵⁸

Critically, network neutrality rules—also known as open Internet rules—apply only to broadband *access* services.⁵⁹ These are the mass-market retail services that provide Internet access to individual homes, businesses, and devices.⁶⁰ The rules do not apply to so-called “edge” content and services, which are the destinations that users seek online. Assume, for example, that a Comcast broadband subscriber is at home streaming the series *Stranger Things* on Netflix.⁶¹ Netflix is the edge destination—that’s what the user actually wants to see. The user, however, is accessing Netflix’s computers through Comcast’s local infrastructure that connects her home and neighborhood to the larger

Frontier for Network Neutrality, 60 ADMIN. L. REV. 273, 312 (2008) (stating rationale for network neutrality is to maintain “Internet’s openness to innovation without permission”).

⁵⁴ See Barbara van Schewick, *Network Neutrality and Quality of Service: What a Nondiscrimination Rule Should Look Like*, 67 STAN. L. REV. 1, 4-5 (2015) (discussing how Internet service providers have been unable to interfere with consumer use of network).

⁵⁵ *Id.* at 5 (discussing how permission-less platform enables Internet to reach “economic, social, cultural, and political potential”).

⁵⁶ 2015 Title II Order, *supra* note 2, at 5625-27 (explaining that Internet openness fosters and promotes innovation); 2010 Open Internet Order, *supra* note 53, at 17910-12 (arguing Internet’s openness “enables a virtuous circle of innovation”); see also *Verizon v. FCC*, 740 F.3d 623, 644-46 (D.C. Cir. 2014) (analyzing relationship between internet openness and innovation).

⁵⁷ See 2015 Title II Order, *supra* note 2, at 5627 (finding “Internet’s openness is critical to its ability to serve as a platform for speech and civic engagement”); 2010 Open Internet Order, *supra* note 53, at 17912 (stating openness is “essential to the Internet’s role as a platform for speech and civic engagement”).

⁵⁸ See, e.g., Verizon Communications, Inc., Comment Letter on Restoring Internet Freedom (July 17, 2017), [<https://perma.cc/CG58-GG8X>] (“We are committed to an open Internet . . . [but] Title II . . . is the wrong answer.”).

⁵⁹ 2015 Title II Order, *supra* note 2, at 5709-10, 5743-49 (defining regulated service as “broadband Internet access service”).

⁶⁰ *Id.* at 5745-46 (defining “broadband Internet access service” as “mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoint”).

⁶¹ *Stranger Things* (Netflix 2016).

network. Comcast thus provides the road, and Netflix the destination. Comcast's access service, however, does not facilitate the entire transmission. It provides the connection at the edges which provides the capability to send and receive anything. Access service is thus more analogous to off-ramps and driveways than to interstate highways. In this sense, Comcast actually provides the last mile of road, while the entire Internet is the set of all potential destinations.

Network neutrality rules are therefore only about this last part of the road—that's what broadband *access* means. Access service is distinct from the Internet itself and is provided almost exclusively by cable and telephone companies (wireless and wireline).⁶² The rules aim to prevent access providers from leveraging physical control over this specific leg of the network to harm users and edge providers.⁶³ Accordingly, the FCC's rules (prior to repeal) had prohibited actions like blocking, throttling, and other forms of discrimination potentially enabled by physical control of the local transmission infrastructure.⁶⁴

The literature on the costs and benefits of the open Internet protections is extensive, and this brief discussion only scratches the surface.⁶⁵ One important point, however, is that access services have dramatically different economic characteristics than edge services. Access networks take on characteristics of natural monopolies because they require enormous capital expenditures (which are upfront and sunk) to construct the infrastructure necessary to connect individual homes and businesses on a mass scale. The barriers to entry are thus extensive—which explains why broadband access comes almost entirely from networks already built for earlier monopoly technologies (telephone and cable).⁶⁶ Edge services, by contrast, have much lower entry costs.⁶⁷ By analogy, it is much cheaper to start a Burger King restaurant than to construct the vast network of roads and driveways necessary for customers to reach it.

With this background in mind, the important point for our purposes is how the light-touch narrative intersects with modern policies. More precisely, it is

⁶² See 2015 Title II Order, *supra* note 2, at 5615 (describing broadband Internet access service as transmission platform); Adam Candeub, *The Common Carrier Privacy Model*, 51 U.C. DAVIS L. REV. 805, 845 (2018) (noting that “traditional telephone and cable companies . . . now dominate broadband access markets”).

⁶³ See 2015 Title II Order, *supra* note 2, at 5628-33 (discussing power broadband providers have to impose barriers, harming users and edge providers).

⁶⁴ See *id.* at 5607-09 (defining rules applicable to broadband internet access service).

⁶⁵ See generally ANGELE A. GILROY, CONG. RESEARCH SERV., R40616, THE NET NEUTRALITY DEBATE: ACCESS TO BROADBAND NETWORKS (2018), <https://fas.org/sgp/crs/misc/R40616.pdf> [<https://perma.cc/Y5VB-P8VS>] (summarizing legislation and debate on telecommunications reform and open access to internet).

⁶⁶ See Candeub, *supra* note 62, at 845 (finding “traditional telephone and cable companies . . . dominate broadband access markets”).

⁶⁷ It is possible that some of the largest edge services like Google's search and Facebook are currently exhibiting monopoly characteristics, but that question (while interesting) is beyond the scope of this Article.

important to see how the narrative influenced the FCC’s recent decision to abandon open Internet requirements. In 2015 under the Obama Administration, the FCC formally adopted various open Internet rules.⁶⁸ To strengthen the statutory authority for these rules, the FCC also reclassified broadband access as a “telecommunications service” under Title II of the Communications Act, which is the section that governs common carriers.⁶⁹ In effect, the FCC concluded that broadband access was more like a traditional telephone transmission service—and could therefore be regulated more extensively.⁷⁰ The industry challenged these decisions, but the D.C. Circuit upheld both the rules and the decision to reclassify broadband access as a common carrier service.⁷¹

In late 2017, under a new administration, the FCC formally repealed both the rules and the reclassification in the *2017 Repeal Order*.⁷² Thus, the FCC not only scrapped the regulations, it also disavowed the legal foundation that the prior FCC had used, and that the D.C. Circuit had blessed.

The light-touch narrative—and the FCC’s understanding of history—played a key role in the *2017 Repeal Order* in several respects. First, the narrative provided normative support for repeal. Indeed, as noted in the Introduction, the order opened with a background history that cast the prior *2015 Title II Order* as a decisive break with decades of non-regulation of computer services.⁷³

The main theme of this background section was that federal law had traditionally drawn a sharp line between common carrier services and everything else. Accordingly, it listed several proceedings that reflected the demarcation between regulated and unregulated services.⁷⁴ The earliest FCC proceedings in

⁶⁸ See 2015 Title II Order, *supra* note 2, at 5607-09 (listing rules protecting consumers from tactics such as blocking, throttling and paid prioritization, that threaten open Internet).

⁶⁹ See *id.* at 5615-16. To be precise, it held that broadband access included “separately identifiable offers” that included a telecommunications service and various “add-on” services that are generally information services. *Id.*

⁷⁰ See *id.*

⁷¹ See *U.S. Telecom Ass’n v. FCC*, 825 F.3d 674, 689, 700 (D.C. Cir. 2016) (holding FCC reasonably reclassified broadband services as telecommunications service).

⁷² 2017 Repeal Order, *supra* note 3, at 312 (reversing *2015 Title II Order* to “restore broadband Internet access service to its Title I information service classification”).

⁷³ *Id.* at 312 (portraying *2015 Title II Order* as “abrupt shift” that “abandoned almost twenty years of precedent”). This narrative is echoed in both the *2017 Internet Freedom Notice* and Chairman Ajit Pai’s earlier writing about the proceeding. See *2017 Internet Freedom Notice*, *supra* note 1, at 4435 (“This decision represented a massive and unprecedented shift in favor of government control of the Internet.”); Pai, *supra* note 46, at 148 (“This was a radical departure from the bipartisan, market-oriented policies that served us so well for the last two decades.”).

⁷⁴ See 2017 Repeal Order, *supra* note 3, at 313-18 (describing history of federal law drawing “a line between the more heavily-regulated common carrier services like traditional telephone service and more lightly-regulated services that offer more than mere transmission”); *2017 Internet Freedom Notice*, *supra* note 1, at 4436-41 (giving history of distinction between heavily regulated and more lightly regulated services).

this area—the *Computer Inquiries* proceedings that began in the 1960s⁷⁵—initially divided the world into “basic” and “enhanced” services.⁷⁶ Basic referred to common carrier transmission services, while enhanced referred to computer services that were largely unregulated.⁷⁷ (At the time, users could only reach these services through the telephone network—in a sense, all the world was dial-up).⁷⁸

Federal courts similarly recognized this boundary in the breakup of AT&T in the 1980s.⁷⁹ The court had allowed the remnants of AT&T—the Bell Operating Companies—to offer “telecommunications services,” which were regulated as common carrier services.⁸⁰ It prohibited them, however, from offering “information services,” which were unregulated and competitive.⁸¹ A decade later, Congress formally codified this division in the 1996 Act, which also adopted the terms “telecommunications services” and “information services.”⁸² The *2017 Repeal Order* treats the 1996 Act as an important point in history.⁸³

⁷⁵ The first proceeding—known as *Computer I*—started with a notice of inquiry in 1966. Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities, 7 F.C.C.2d 11, 11-12 (1966) (notice of inquiry) [hereinafter *Computer I Inquiry*] (“[I]n order to facilitate the orderly development of the computer industry and promote the application of its technologies in such a fashion as to serve the needs of the public effectively, efficiently, and economically. . . . the Commission is undertaking this inquiry as a means of obtaining information, views, and recommendations . . .”).

⁷⁶ These definitions were finalized in the order known as *Computer II*. *Computer II Final Decision*, *supra* note 27, at 387 (stating adoption of regulatory scheme divided into offerings of “basic transmission services” and “enhanced services”).

⁷⁷ *Id.* at 418-21 (“A basic transmission service is one that is limited to the common carrier offering of transmission capacity for the movement of information An enhanced service is any offering over the telecommunications network which is more than a basic transmission service.”).

⁷⁸ See John Blevins, *The FCC and the “Pre-Internet,”* 91 IND. L.J. 1309, 1314-15 (2016) (explaining early use of private lines and dial-up services). Technically, these services used private lines not dial-up—the analogy is only meant to help understand that all the services had to be accessed through the telephone network.

⁷⁹ See *United States v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131, 138 n.17 (D.D.C. 1982) (acknowledging FCC distinction between basic and enhanced services).

⁸⁰ *Id.* at 141 (holding AT&T required to provide companies tools “to enable them to provide exchange telecommunications and exchange access services”).

⁸¹ *Id.* at 142-43, 229 (prohibiting operating companies from providing information services to eliminate possible improper advantage over competitors).

⁸² See 47 U.S.C. § 153(24), (50), (53) (2012) defining “information services,” “telecommunications,” and “telecommunications service”).

⁸³ Both the FCC’s notice and its final order opened with the 1996 Act in the very first paragraph. 2017 Repeal Order, *supra* note 3, at 312 (beginning by describing policy behind Telecommunications Act of 1996); 2017 Internet Freedom Notice, *supra* note 1, at 4435 (opening with discussion of “free and open Internet” through Telecommunications Act of 1996).

The FCC explained that “[f]or the next 16 years, [we] repeatedly adopted a light-touch approach to the Internet that favored discrete and targeted actions over pre-emptive, sweeping regulation of Internet service providers.”⁸⁴

Continuing with its background section, the *2017 Repeal Order* next described the arrival of high-speed broadband access in the late 1990s and early 2000s.⁸⁵ The order noted, correctly, that the FCC had classified cable high-speed broadband access as an “interstate information service” in the *2002 Cable Modem Order*.⁸⁶ In communications law, labels matter—what you call something determines how it can be regulated. By classifying broadband access as an information service, the FCC ensured that it could not be regulated as a common carrier service.⁸⁷ From there, the *2017 Repeal Order* listed other types of broadband access (wireline, wireless, etc.) that had been classified as an information service over the years.⁸⁸ This chain had started, however, with the *2002 Cable Modem Order* and the Supreme Court case that approved it.⁸⁹

The clear implication of all this history was that federal policymakers had a long tradition of not regulating data and Internet services. This narrative is not literally false, but it is misleading. It is undeniably true that federal law has long distinguished between common carrier services and computer services. The misleading part, however, is that the FCC invoked this history to justify deregulating broadband access. In a type of sleight of hand, the *2017 Repeal Order* describes a long list of non-regulated services, but then implies that broadband access belongs in that same category.⁹⁰ It thus conceptualizes broadband access service as an unregulated destination rather than as a regulated road.

This historical narrative, however, provides more than normative support. It also provides a positive source of legal authority. The *2017 Repeal Order* relies on specific statutory interpretations of the 1996 Act that incorporate these

⁸⁴ 2017 Repeal Order, *supra* note 3, at 314 (describing FCC’s approach to Internet regulation after Telecommunications Act of 1996).

⁸⁵ *Id.* at 315 (describing approach to Internet regulation in early 2000s); *see also* 2017 Internet Freedom Notice, *supra* note 1, at 4437-41 (summarizing approach to Internet regulation in 1990s and 2000s).

⁸⁶ 2017 Repeal Order, *supra* note 3, at 315 (stating *2002 Cable Modem Order* “classified broadband Internet access service over cable systems as an ‘interstate information service’”); *see* 2002 Cable Modem Order, *supra* note 30, at 4802 (stating “cable modem service, as it is currently offered, is properly classified as an interstate information service, not as a cable service”); 2017 Internet Freedom Notice, *supra* note 1, at 4438 (stating the *2002 Cable Modem Order* “classified broadband Internet access service over cable systems as an ‘interstate information service’”).

⁸⁷ As an aside, this is why the 2015 *re*-classification was so significant.

⁸⁸ 2017 Repeal Order, *supra* note 3, at 315-16 (listing previous orders classifying broadband Internet access service over wireline facilities, over powerlines, and transmitted wirelessly as information services).

⁸⁹ *See* 2002 Cable Modem Order, *supra* note 30.

⁹⁰ *See* 2017 Repeal Order, *supra* note 3.

problematic historical assumptions.⁹¹ This statute is the most important source of legal authority for the FCC's repeal and reclassification. Critically, the FCC can only abandon Title II reclassification if broadband service is an "information service" offering under the 1996 Act. Otherwise, it would be a "telecommunications service," and reclassification would violate the statutory text.⁹²

The *2017 Repeal Order* makes two general arguments to establish its statutory authority in this area. First, it concludes that broadband access is an information service on its own.⁹³ Alternatively, it argues broadband access is "inextricably intertwined" with the information services it transmits to users.⁹⁴ As a result, the entire offering becomes a single unified information service. Under either approach, the FCC claims it has legal authority for broadband service's repeal and reclassification.

Interestingly, both of these arguments rely on a version of the light-touch narrative where access service is basically equivalent to the Internet itself. For instance, the *2017 Repeal Order* contends that broadband access is an information service because it provides a "capability" for doing the things that most people associate with other edge providers (and to be precise, with higher-layer applications).⁹⁵ In particular, it provides the capability of generating social media content, streaming video, sharing files, and using gaming applications.⁹⁶ Alternatively, the FCC concluded that broadband access is at least intertwined with all of these higher-layer services—and is therefore perceived by consumers as offering one integrated information service.⁹⁷ The broader implication is that

⁹¹ *Id.* at 321 (stating that FCC will rely on "pre-1996 Act precedent in resolving how the statutory definitions apply to broadband Internet access service").

⁹² As I explain in Part IV, this does not necessarily imply that the FCC cannot repeal network neutrality rules. A more legally sound approach—though one I disagree with on a normative basis—would be to maintain the classification but exercise its forbearance authority. *See* 47 U.S.C. § 160 (2012).

⁹³ 2017 Repeal Order, *supra* note 3, at 322-23.

⁹⁴ *Id.* at 335, 337-38 ("Separate and distinct from our finding that an ISP 'offers' an information service from the consumer's perspective, we find that as a factual matter, ISPs offer a single, inextricably intertwined information service.").

⁹⁵ *Id.* at 322-25 (explaining "broadband Internet access is an information service irrespective of whether it provides the *entirety* of any end user functionality or whether it provides end user functionality in tandem with edge providers"); *see also infra* Part IV (discussing FCC's reliance on use of word "capability").

⁹⁶ 2017 Repeal Order, *supra* note 3, at 322 (stating purpose of broadband Internet access service is for "use in '*generating*' and '*making available*' information to others . . . ; '*acquiring*' and '*retrieving*' information from sources . . . ; '*storing*' information in the cloud and remote servers, and via file sharing applications; '*transforming*' and '*processing*' information . . . ; and '*utilizing*' information" (citations omitted)).

⁹⁷ *Id.* at 325 ("[W]e conclude that DNS and caching functionalities, as well as certain other information processing capabilities offered by ISPs, are integrated formation processing capabilities offered as part of broadband Internet access service to consumers today.")

broadband access should be included in the category of services that were historically unregulated.⁹⁸

Broadband access itself, however, technically provides none of these things. These services (e.g., video streaming, email, etc.) are the destinations that users seek by purchasing broadband access from a local provider.⁹⁹ Broadband access, by contrast, is a transmission service. It acts more like a local road than a destination. The fact that the road provides the capability of accessing Burger King does not transform the road into a restaurant or an integrated offering of food and transport. As several network engineers explained, the FCC “conflates the roles of Internet Service Providers and the myriad companies that offer substantive services on the Internet as a whole.”¹⁰⁰

The FCC uses history to interpret other sections of the 1996 Act as well. The *2017 Repeal Order* relies on an interpretation of Section 230 to support its decision.¹⁰¹ Its language is revealing and is therefore quoted at length below:

Congress codified its view in section 230(b)(2) of the Act, stating that 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.” This statement confirms that the free market approach that flows from classification as an information service is consistent with Congress’s intent. In contrast, *we find it hard to reconcile this statement in section 230(b)(2) with a conclusion that Congress intended the Commission to subject broadband Internet access service to common carrier regulation under Title II.*¹⁰²

Again, the problem here is not the claim that Congress preferred restraint. That is clear. The problem is that broadband access is something completely different from what Congress understood as “the Internet and other interactive computer services.”¹⁰³ In this way, the FCC’s narrative again lumps broadband access together with the unregulated Internet that preceded it. As the next Part illustrates, however, pre-2002 policy universally understood these terms in much different ways.

(citations omitted)).

⁹⁸ *Id.* at 324 (describing broadband access capabilities to support its grouping with other information services). The FCC also uses the *Stevens Report* to buttress its textual analysis. *Id.* (substantiating decision to group Internet access with other information services with prior ruling that dial-up access is information service).

⁹⁹ Internet Engineers, Pioneers, and Technologists, Comment Letter on Proposed Rule to Restore Internet Freedom (July 17, 2017) [hereinafter Internet Engineers Comments], [<https://perma.cc/YWL4-JJDS>] (“ISPs merely provide the transport between the end user and the capability that they are attempting to access.”).

¹⁰⁰ *Id.* at 19.

¹⁰¹ 2017 Repeal Order, *supra* note 3, at 348-49 (quoting 47 U.S.C. § 230 (2012)).

¹⁰² *Id.* (emphasis added) (footnotes omitted).

¹⁰³ *Id.* (quoting 47 U.S.C. § 230).

II. THE ORIGINS OF LIGHT-TOUCH POLICIES

This Part examines the origins of light-touch policies. It will explain that early computer networks (including the Internet) relied upon the local telephone network to access consumers. As these networks grew, they were competitive, and policymakers wanted to leave them alone. Policymakers thus adopted a series of deregulatory policies while preaching the virtues of regulatory restraint. The key, however, is that all of the policies and rhetoric were understood to apply to the *services being accessed via the telephone network*. They did not apply to the telephone network itself. Thus, virtually every deregulatory policy and argument from the 1960s to the late 1990s had an implicit limitation embedded within it. This limitation also applies to the concept of “intertwined” services, which evolved from an earlier concept known as “contamination theory” that applied to the specific context of resale and value-added services. The remainder of this Part explains and defends these claims.

A. *The Beginning: Computer Inquiries and the Rise of Data Services*

The origins of light-touch policies trace back to the origins of computer networks. Well before the Internet existed, new computer services (known as “data services”) emerged in the 1960s.¹⁰⁴ As I have written elsewhere in more detail, businesses could use these new data services to process payroll, check stock quotes, or perform numerous other types of operations that benefited from computing power.¹⁰⁵ The key point is that data services depended on the local telephone facilities to access their customers.¹⁰⁶ Telephone carriers (generally AT&T) provided the infrastructural connections between the customers and the computers.¹⁰⁷

Initially, these connections depended on AT&T’s private line services, which were higher-capacity networks dedicated to a specific consumer.¹⁰⁸ Private lines, like early computer services, were thus primarily used by businesses and larger

¹⁰⁴ Computer I Inquiry, *supra* note 75, at 11-12 (describing then-modern-day computer capabilities).

¹⁰⁵ See Blevins, *supra* note 78, at 1314 (describing early uses of data services in business). The cited article provides a much deeper analysis of the *Computer Inquiries* proceedings, but largely stops the historical analysis at 1980. *Id.* at 1314-19. This Article, by contrast, builds upon this research but extends more broadly and carries it through the present.

¹⁰⁶ Computer I Inquiry, *supra* note 75, at 11, 15 (stating that computer access is obtained through common carrier telecommunication channels).

¹⁰⁷ *Id.* at 11 (highlighting consumers’ dependence on communications common carriers for computer access); Bernard Strassburg, *The Computer Utility—Some Regulatory Implications*, 9 JURIMETRICS J. 19, 19-20 (1968) (substantiating rate investigation of Bell System (later AT&T) by asserting Bell System’s critical importance to growth of computer usage).

¹⁰⁸ *Am. Tel. & Tel. Co. v. FCC*, 572 F.2d 17, 19-21 (2d Cir. 1978) (providing overview of these arrangements).

organizations.¹⁰⁹ “Dial up” services that relied on the public telephone network would come later.¹¹⁰ AT&T provided most of these connections through its regional Bell Operating Companies, which constituted monopolies in much of the country.¹¹¹ Critically, AT&T provided the local “last mile” connections, which are the most expensive and least competitive parts of the overall network.¹¹² Even when private line competitors emerged, they often still relied on AT&T’s local facilities to make these final connections at the edge.¹¹³ By analogy, it would be as if new companies built high-speed interstate highways but still needed access to AT&T’s off-ramps and driveways to reach users. This dynamic—AT&T’s monopolistic control of local facilities—would later be at the heart of the AT&T/MCI dispute and the ultimate breakup of AT&T.¹¹⁴

For the emerging data services industry, the telephone network was therefore both its lifeblood and a potential threat. Interestingly, the perceived threats were not the more modern concerns of blocking and throttling. Instead, data providers worried that telephone companies would enter the data markets themselves with unfair advantages because of their control of the local access infrastructure.¹¹⁵ For instance, a telephone carrier’s data service might benefit from cheaper transport; alternatively, it might cross-subsidize its competitive data services by raising the costs of, or allocating costs to, its monopoly telephone services.¹¹⁶ A

¹⁰⁹ *Id.* at 20.

¹¹⁰ See Blevins, *supra* note 78, at 1315; *supra* text accompanying note 78 (discussing dial-up in history of data services development).

¹¹¹ Establishment of Policies and Procedures for Consideration of Applications to Provide Specialized Common Carrier Services, 24 F.C.C.2d 318, 347 (July 15, 1970) (notice of inquiry to formulate policy, proposed rule making, and order) (“The local exchange facilities of the Bell System and independent telephone companies presently constitute almost the sole means for local distribution of interstate common carrier services . . .”).

¹¹² H. James Nelson, *The Telecommunications Act of 1996: How It Failed, and How It Succeeded (but Not As Expected)*, 31 S. ILL. U. L.J. 1, 1 (2006) (stating that local “last mile” connections provide most difficulty); Konstantinos K. Stylianou, *An Innovation-Centric Approach of Telecommunications Infrastructure Regulation*, 16 VA. J.L. & TECH. 221, 242 n.127 (2011) (“The last mile is the hardest and most expensive part of the network infrastructure to replicate, because it entails acquiring rights of access, digging up trenches, deploying wires, etc.”).

¹¹³ See *supra* note 111 (emphasizing reliance on AT&T as sole purveyor of local connection services).

¹¹⁴ See *MCI Comm. Corp. v. Am. Tel. & Tel. Co.*, 708 F.2d 1081, 1133 (7th Cir. 1983) (explaining AT&T’s denial of local facilities to MCI); *United States v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131, 162 (D.D.C. 1982) (“AT & T was able to adopt the [anticompetitive] policies described above in large part because of its control over the local exchange facilities.”).

¹¹⁵ Blevins, *supra* note 78, at 1316 (highlighting fear of potentially unfair advantages held by common carriers in new data markets). As I explain, they also focused on the costs and quality of the common carrier offerings. *Id.*

¹¹⁶ See *Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities*, 28 F.C.C.2d 267, 270-71 (1970) (final decision)

modern analogue would be if Comcast started a new streaming service to compete with Netflix and used its local facilities—i.e., the lines to your house—to gain advantages. The larger point is that both the data industry and policymakers had reason to fear the carriers' control of local access services.

Another challenge was how to classify these new data services for regulatory purposes. On the one hand, customers accessed these services through the telephone network, which was subject to extensive common carrier regulations.¹¹⁷ It was therefore possible to regulate them the same way. On the other hand, data services differed in several important ways. Economically, data services markets were extremely competitive.¹¹⁸ Unlike the telephone market, entry costs for data providers were exponentially lower; for instance, the cost of purchasing computing machines was far less than constructing an entirely new physical infrastructure to connect millions of individual houses and apartment buildings.¹¹⁹ Technologically, data services also provided processing functions (e.g., calculations and stock quotes), while telephone carriers provided transport (or “communications”) services.¹²⁰ In short, these were different services that called for different regulatory treatment.

Through a series of proceedings collectively known as *Computer Inquiries*, the FCC formally recognized these differences.¹²¹ The FCC opened *Computer Inquiries* in 1966.¹²² Though the proceedings extended for decades, its most important orders are known as *Computer I* (1971)¹²³ and *Computer II* (1980),¹²⁴ which created the basic regulatory framework that exists to this day. *Computer II* separated the world into “basic” and “enhanced” services.¹²⁵ Basic services were communications services that provided transport alone.¹²⁶ Enhanced

[hereinafter *Computer I* Final Decision] (describing potential anticompetitive problems); Regulatory and Policy Problems Presented by the Interdependence of Computer and Communications Services and Facilities, 28 F.C.C.2d 291, 298-99 (1970) (tentative decision) [hereinafter *Computer I* Tentative Decision] (suggesting that regulating carriers prevents anticompetitive practices).

¹¹⁷ See generally 47 U.S.C. §§ 201-230 (1934) (describing regulations of telecommunications common carriers).

¹¹⁸ *Computer I* Tentative Decision, *supra* note 116, at 297 (“[W]e conclude that the offering of data processing services is essentially competitive . . .”).

¹¹⁹ See *supra* note 112.

¹²⁰ See, e.g., *Computer I* Tentative Decision, *supra* note 116, at 291-92 (using term “communications services” in distinguishing computers from traditional communications industry).

¹²¹ See Kevin Werbach, *The Network Utility*, 60 DUKE L.J. 1761, 1802-03 (2011) (chronicling series of proceedings).

¹²² *Computer I* Inquiry, *supra* note 75.

¹²³ *Computer I* Final Decision, *supra* note 116.

¹²⁴ *Computer II* Final Decision, *supra* note 27.

¹²⁵ See *id.* at 387 (discussing dichotomy between basic and enhanced services).

¹²⁶ *Id.* (“[B]asic service is limited to the common carrier offering of transmission capacity for the movement of information . . .”).

services were essentially everything else—including all the new data services.¹²⁷ Basic services remained regulated as common carrier services just as they had been for decades, while enhanced services were essentially unregulated.¹²⁸

For our purposes, one key takeaway from these proceedings is that the non-regulation of enhanced services is the true ancestor of the light-touch narrative. Policymakers then, as now, emphasized that regulation was unnecessary because data markets were sufficiently competitive.¹²⁹ However, when policymakers and commenters preached the virtues of non-regulation, they always did so under the implicit assumption that an underlying basic service would remain. Indeed, the textual definition of enhanced services implies the existence of an underlying regulated service. *Computer II* defined enhanced services as “services, offered over common carrier transmission facilities used in interstate communications, which employ computer processing . . .”¹³⁰ In short, deregulation always had an implicit limitation. In fact, in reviewing the archives of these proceedings, I failed to find a single instance of anyone arguing for basic services to be unregulated.¹³¹

Another important takeaway is that *Computer II* created the concept of “intertwined” services.¹³² As explained later, this concept is arguably the central legal foundation of the *2002 Cable Modem Order*, *National Cable & Telecommunications Ass’n v. Brand X Internet Services*,¹³³ and the *2017 Repeal Order*.¹³⁴ The concept, however, applied to a very specific technological context. It was never understood to apply to local access networks themselves. Untangling this history provides a great deal of insight into why its use in the broadband era is problematic.

¹²⁷ *Id.* (“[E]nhanced service combines basic service with computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber’s transmitted information, or provide the subscriber additional, different, or restructured information, or involve subscriber interaction with stored information.”).

¹²⁸ *See id.* (distinguishing basic regulated services from enhanced unregulated services). Technically, the FCC claimed to retain ancillary jurisdiction over enhanced services pursuant to Section 1 of the Communications Act, but this was effectively the same as no regulation. *See id.* at 435 (justifying lack of regulation for enhanced services by emphasizing ancillary regulatory powers).

¹²⁹ *See id.* at 386-89 (discussing relationship between competition and regulatory approach to data services industry).

¹³⁰ *Id.* app. at 498 (emphasis added).

¹³¹ Blevins, *supra* note 78, at 1340 (“My research, however, failed to uncover a single commenter—including common carriers themselves—who proposed deregulating the underlying physical transmission service itself.”).

¹³² *See Computer II Final Decision*, *supra* note 27, at 430 (“In enhanced services, communications and data processing technologies have become intertwined . . .”).

¹³³ 545 U.S. 967 (2005).

¹³⁴ *See infra* Part IV (describing development of idea that broadband access is distinct, intertwined service). The basic idea is that broadband access is an unregulated “information service” because it is inextricably intertwined with other information services.

The conceptual origins of intertwined services trace back to resale services, which is a context the literature often overlooks. Resale services emerged in the 1970s as both a competitor to AT&T's monopoly service (particularly its private line markets) and a source of advanced computer services including packet-switched networks.¹³⁵ The business model of many resale carriers was to purchase basic transmission service from AT&T, combine it with their own computing services, and then "resell" them together as one unified package.¹³⁶ From the customer's perspective, the resale carrier provided a unified, integrated package of communications and data services.

This combination raised some challenges for the FCC. The resale carriers were, in a sense, quite clearly offering communications services (i.e., transport) and not merely data services. Under existing law, communications services were *required* to be regulated as common carrier services.¹³⁷ At the same time, however, these were competitive services that did not own local facilities.¹³⁸ Traditional regulation therefore made little sense. The FCC also wanted to encourage these dynamic new services, which they saw as a key source of competition and innovation.¹³⁹

The FCC's ultimate answer was simply to deregulate the entire category using the concept of integrated services. The deregulation began in the *1976 Resale Order*.¹⁴⁰ This order deserves more attention in the literature because it illuminates the background assumptions of the FCC's deregulatory policies. For instance, the FCC assumed that resale carriers would not themselves own local monopoly facilities: "[W]e anticipate that resale services will be provided by entities which do not provide monopoly services . . ."¹⁴¹ Instead, they would purchase regulated services from "underlying carriers" like AT&T and then integrate it with their own new offerings.¹⁴² If, however, any carrier did own

¹³⁵ See *Am. Tel. & Tel. Co. v. FCC*, 572 F.2d 17, 19-21 (2d Cir. 1978) (providing overview of this potential market competition); Regulatory Policies Concerning Resale and Shared Use of Common Carrier Services and Facilities, 60 F.C.C.2d 261, 271-76 (1976) (report and order) [hereinafter 1976 Resale Order] (discussing characteristics of resale services arrangements).

¹³⁶ 1976 Resale Order, *supra* note 135, at 263, 272-73.

¹³⁷ See Jerry Ellig & Alastair Walling, *Regulatory Status of Voip in the Post-Brand X World*, 23 SANTA CLARA COMPUTER & HIGH TECH. L.J. 89, 94 (2006) (noting regulatory burdens common carriers under Title II).

¹³⁸ Computer II Final Decision, *supra* note 27, at 425-28 (stating that regulation had not yet expanded to residential services).

¹³⁹ See 1976 Resale Order, *supra* note 135, at 266 (emphasizing commitment to widening access to innovative communication services).

¹⁴⁰ *Id.* at 265-66 ("We find that elimination of the restrictions on unlimited resale and sharing of private line service will bring about public benefits . . .").

¹⁴¹ *Id.* at 315-16.

¹⁴² *Id.* at 271-72, 300-02.

local monopoly facilities, they would have to create a new separate resale subsidiary.¹⁴³

Explicitly using the *1976 Resale Order* as a template, *Computer II* extended this deregulation further.¹⁴⁴ The *1976 Resale Order* had relaxed some, but not all, requirements on resale and enhanced services providers offering communications services within their integrated packages.¹⁴⁵ The scope of the regulatory burden depended on increasingly outdated classifications of whether “data processing” or “communications” services were involved.¹⁴⁶ The regulatory disparity, however, made little sense economically given that these companies were competitive and did not generally own local monopoly facilities.¹⁴⁷ As the FCC observed, “most enhanced service providers are and will remain dependent upon AT&T’s common carrier facilities.”¹⁴⁸ In *Computer II*, the FCC solved the problem by eliminating these distinctions and then deregulating all enhanced services.¹⁴⁹

In this context, the legal concept of “intertwined” services makes perfect sense. It provided a way to deregulate competitive services under the constraints of the pre-existing statutory regime. In other words, it was a statutory hack—the companies could “resell” common carrier services without being regulated as a common carrier as the statute seemingly required. In the 1980s, the FCC ultimately referred to this regulatory approach as “contamination theory.”¹⁵⁰ The

¹⁴³ *Id.* at 315-16, 316 n.96 (declaring requirement to establish subsidiary entity). AT&T was excluded from enhanced markets at the time, so this provision presumably applied to smaller, likely rural, independent telephone companies with local monopoly facilities.

¹⁴⁴ In the FCC’s own words, the *1976 Resale Order* was the explicit template for its more famous *Computer II* order—one that allowed them to address “inextricably intertwined” services. Amendment of Section 64.702 of the Commissioner’s Rules and Regulations (Second Computer Inquiry), 72 F.C.C.2d 358, 358, 393-98 (1979) (tentative decision) [hereinafter *Computer II Tentative Decision*] (noting ability the previous order provided to address services that were “inextricably intertwined in the convergence of communications and data processing”); *see also* *Computer II Final Decision*, *supra* note 27, at 386-87 (explaining adopted regulatory scheme).

¹⁴⁵ *1976 Resale Order*, *supra* note 135, at 316 (explaining what regulations have and have not been adopted for resale of communication services).

¹⁴⁶ *Computer II Tentative Decision*, *supra* note 144, at 426-27 (noting that *First Computer Inquiry* incorrectly implied “stable dichotomy could be established between” unregulated “data processing” and regulated “communications”).

¹⁴⁷ *Id.* at 426-28 (weighing regulatory constraints and market realities).

¹⁴⁸ Amendment of Section 64.702 of the Commissioner’s Rules and Regulations (Second Computer Inquiry), 84 F.C.C.2d 50, 77 (1980) (opinion and order) [hereinafter *Computer II Reconsideration Order*].

¹⁴⁹ *Computer II Final Decision*, *supra* note 27, at 428, 430, 433 (concluding that “public interest would not be served by any classification scheme that attempts to distinguish enhanced services based on the communications or data processing nature of the computer processing activity performed”).

¹⁵⁰ *Third Computer Inquiry*, 50 Fed. Reg. 33,581, 33,586 (proposed Aug. 20, 1985) (codified at 47 C.F.R. § 64) (“There was precedent for the proposition that a combination of

idea was that resellers and value-added networks would be unregulated because the “enhanced component of [the] offering ‘contaminates’ the basic component and the entire offering is thus treated as enhanced.”¹⁵¹ This theory thus allowed new entrants to offer communications services free from regulatory burdens.

Critically, however, contamination theory *never* applied to basic access service. Both the *1976 Resale Order* and *Computer II* adopted deregulation with the explicit understanding that basic services would remain regulated.¹⁵² Indeed, the FCC emphasized this point, noting that “it is imperative that access to and use of this transmission capacity is afforded all enhanced service providers under equal terms and conditions.”¹⁵³ Accordingly, contamination theory deregulated entities that purchased regulated basic service and combined it with other advanced offerings. The concept always came with an inherent limitation—and basic service was always regulated at some point along the supply chain.

Some of the strongest evidence of this limitation actually comes years later in the FCC’s *Frame Relay Order* in the 1990s.¹⁵⁴ This is another order that deserves far more attention in the modern literature. It is one of the earliest examples of a telephone company attempting to use contamination theory to avoid regulation of a basic communications service. In other words, it is an early attempt to stretch contamination theory beyond its original context.

AT&T’s frame relay service was, in effect, a more efficient packet-switching network service.¹⁵⁵ It was faster because it was dumber. The service would simply transport “frames” of packets without waiting for a confirmation that the data successfully arrived.¹⁵⁶ Earlier services had waited for these confirmations, but frame relay shifted that function to a different part of the network.¹⁵⁷ It was therefore much faster. AT&T wanted to avoid regulation and thus argued that frame relay was an enhanced service as opposed to a regulated basic transport service.¹⁵⁸ Critically, AT&T relied explicitly on the contamination theory to

enhanced and basic services could be treated in its entirety as a unitary unregulated enhanced service . . .”).

¹⁵¹ Amendment to Sections 64.702 of the Commissioner’s Rules and Regulations (Third Computer Inquiry), 2 FCC Rcd. 3072, 3075 n.21 (1987) (report and order); *see also* Amendment of Sections 64.702 of the Commissioner’s Rules and Regulations (Third Computer Inquiry), 3 FCC Rcd. 1150, 1153 n.23 (1987) (report and order).

¹⁵² *See supra* note 128 and accompanying text (explaining that basic services remained regulated as they had been for decades).

¹⁵³ Computer II Reconsideration Order, *supra* note 148, at 77.

¹⁵⁴ Indep. Data Commc’ns Mfr. Ass’n, Inc., Am. Tel. & Tel. Co., 10 FCC Rcd. 13717, 13717 (1995) [hereinafter *Frame Relay Order*].

¹⁵⁵ *See id.* at 13718 (discussing AT&T’s InterSpan service).

¹⁵⁶ *See id.*

¹⁵⁷ *See id.* at 13718-19 (explaining how data transmits across network).

¹⁵⁸ *Id.* at 13722 (discussing how basic-enhanced framework would allow AT&T to circumvent *Computer II* and *Computer III*).

support these claims.¹⁵⁹ In language anticipating modern debates, AT&T argued that because frame relay service was integrally connected to its higher-layer services, the entire contaminated offering should be non-regulated.¹⁶⁰

The FCC rejected this claim in no uncertain terms.¹⁶¹ It explicitly stated that frame relay service was a basic transport service and that the contamination theory did not apply.¹⁶²

To date, the Commission has not applied the contamination theory to the services of AT&T or any other facilities-based carrier. . . . Moreover, application of the contamination theory to a facilities-based carrier such as AT&T would allow circumvention of the *Computer II* . . . basic-enhanced framework. AT&T would be able to avoid [regulation] . . . for any basic service that it could combine with an enhanced service. This is obviously an undesirable and unintended result.¹⁶³

This language reflects quite clearly the background assumptions of both deregulatory policy generally and the concept of “intertwined” services specifically. These policies did not apply to the local telephone network, but instead to the services that customers accessed via the telephone network. Data services were thus distinct—legally, technologically, and economically—from the physical access network itself. This historical context provides the crucial background for understanding the meaning of “information services” under the 1996 Act.

B. *The Original Understanding of “Information Services”*

Justice Scalia once wrote that “[i]t would be gross understatement to say that the 1996 Act is not a model of clarity.”¹⁶⁴ This is true. In fact, one reason the Supreme Court upheld the FCC’s deregulation of broadband access was because it found the 1996 Act’s definitions to be ambiguous.¹⁶⁵ Broadband access did

¹⁵⁹ *See id.* (“AT&T contends that the contamination theory applies to its frame relay services, rendering the entire service enhanced and outside the bounds of Title II of the Act.”).

¹⁶⁰ *See id.* (describing AT&T’s argument that its InterSpan service is “outside the bounds of Title II of the Act”).

¹⁶¹ *See id.* at 13723.

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 397 (1999).

¹⁶⁵ *Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 996-97 (2005) (“In sum, if the Act fails unambiguously to classify non-facilities-based information-service providers that use telecommunications inputs to provide an information service as ‘offer[ors]’ of ‘telecommunications,’ then it also fails unambiguously to classify facilities-based information-service providers as telecommunications-service offerors” (alteration in original)).

not fit neatly into the Act's pre-existing statutory definitions, and so the Court deferred to the expert agency's efforts to resolve the ambiguity.¹⁶⁶

The 1996 Act, however, is actually far more clear than it gets credit for—at least with respect to the statutory definitions at issue here. The policymakers drafting the 1996 Act assumed a sharp division between data and transmission services. While it is true that both the statutory text and contemporary rhetoric emphasized deregulation, the implicit assumption was that this deregulation did not extend to the local telephone network.¹⁶⁷ To contemporary policymakers, the Internet (along with data services more generally) was something accessed via a regulated network. It was distinct from the access network itself. When you view many of the 1996 Act's definitions through this historical lens, they suddenly become much more clear and coherent.

The exact language of the 1996 Act traces back to the breakup of AT&T in the early 1980s in response to the Department of Justice's antitrust litigation.¹⁶⁸ Although the proceeding was complex, the heart of the problem was AT&T's control of local facilities.¹⁶⁹ This leg of the network was largely a monopoly, and its specific economic characteristics made it uncontestable.¹⁷⁰ AT&T had constructed the local network over decades with federal subsidies and protections from competition.¹⁷¹ It was therefore economically impossible for a competitor to enter the local access market. It would require enormous capital

¹⁶⁶ *Id.* at 1003 (“The Commission is in a far better position to address these questions than we are.”).

¹⁶⁷ The opening of the 1996 Act notes its purpose to “promote competition and reduce regulation.” Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified at 47 U.S.C. §§ 151-623 (2012)); see also James B. Speta, *Deregulating Telecommunications in Internet Time*, 61 WASH. & LEE L. REV. 1063, 1091 (2004) (“The statements made in support of the 1996 Act very much mirrored the deregulatory rhetoric preceding the trucking, air, and railroad statutes, and Congress drew explicitly on these precedents and on the earlier development of competition in long-distance.”).

¹⁶⁸ See Barbara Esbin, *Internet over Cable: Defining the Future in Terms of the Past*, 7 COMMLAW CONSPECTUS 37, 61-62 (1999) (explaining how court distinguished between “telecommunications services” and “information services”).

¹⁶⁹ See *supra* note 114 and accompanying text.

¹⁷⁰ See Kevin Werbach, *No Dialtone: The End of the Public Switched Telephone Network*, 66 FED. COMM. L.J. 203, 225-26 (2014) (describing economic characteristics of traditional public telephone network).

¹⁷¹ See Megan Delany, *The Dominos of Goldwasser: Only Congress Can Stop the Toppling Effect Before the Game Is Over*, 10 COMMLAW CONSPECTUS 279, 292 (2002) (“Assistant Attorney General William Baxter found ‘the source of AT&T’s monopoly power to be in its control over the local networks, which had been protected from competition as a result of state regulation for over seventy years.’”); Gregory L. Rosston, *The 1996 Telecommunications Act Trilogy*, MEDIA L. & POL’Y, Winter 1996, at 1, 2 & n.8 (citing Robert W. Crandall & Kenneth Flamm, “Overview,” in CHANGING THE RULES: TECHNOLOGICAL CHANGE, INTERNATIONAL COMPETITION, AND REGULATION IN COMMUNICATIONS 2 (Robert W. Crandall & Kenneth Flamm eds., 1989)) (“The 1934 Act was premised on the notion that telephony was a natural monopoly . . .”).

expenditures to build a competing local network (cable networks were constructed for a different purpose and were only later retrofitted, like the telephone network, to provide broadband).

The larger point is that the AT&T proceeding illustrates how extensively policymakers regulated local access networks. The government dismantled the world's largest and most powerful company precisely because it had abused its control of local facilities.¹⁷² Following divestiture, AT&T's local providers were broken up into several smaller entities known as the Regional Bell Operating Companies ("RBOCs").¹⁷³ To prevent further abuse, the federal court imposed additional restrictions by prohibiting the RBOCs from operating in markets where they could leverage their control of local facilities for unfair advantages.¹⁷⁴ It thus quarantined the RBOCs from various markets such as long distance and, more importantly for our purposes, "information services"—a term that self-consciously mimicked the earlier definition of enhanced services.¹⁷⁵

A decade later, Congress adopted this language in the 1996 Act to distinguish between unregulated data services and regulated communications services.¹⁷⁶ In doing so, Congress essentially codified the basic-versus-enhanced dichotomy that *Computer Inquiries* first established.¹⁷⁷ Enhanced services transformed into "information services," while basic services became "telecommunications services."¹⁷⁸ Borrowing from *Computer Inquiries*, Congress defined these services in terms of their function.¹⁷⁹ Information services required some sort of change to, or processing of, the data inputted.¹⁸⁰ Telecommunications, by contrast, was the transmission of a user's information without changing its "form

¹⁷² See Robert W. Crandall, *The Failure of Structural Remedies in Sherman Act Monopolization Cases*, 80 OR. L. REV. 109, 183-84 (2001) (emphasizing prolonged antitrust lawsuits against AT&T and AT&T's adamant fight against any competition entering market).

¹⁷³ *Stewart v. NYNEX Corp.*, 78 F. Supp. 2d 172, 180 (S.D.N.Y. 1999) ("AT&T was to divest its local telephone operations into seven Regional Bell operating companies . . .").

¹⁷⁴ *United States v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131, 143 (D.D.C. 1982) (explaining that restriction was "intended to prevent" RBOCs "from engaging in any non-monopoly business as to eliminate the possibility that they might use their control over exchange services to gain an improper advantage over competitors in such businesses").

¹⁷⁵ See *id.* at 142-43, 229; Susan P. Crawford, *Transporting Communications*, 89 B.U. L. REV. 871, 895 (2009) ("The MFJ said 'information services' were essentially the equivalent of 'enhanced services' . . .").

¹⁷⁶ See 47 U.S.C. § 153 (2012) (defining "information services" and "telecommunications services" separately).

¹⁷⁷ *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 967-68 (2005) ("Under the 1996 Act, '[i]nformation service' is the analog to 'enhanced' service . . .").

¹⁷⁸ See 47 U.S.C. § 153(24), (50), (53).

¹⁷⁹ See *U.S. Telecom Ass'n v. FCC*, 825 F.3d 674, 691 (D.C. Cir. 2016) ("The appropriate regulatory treatment therefore turns on what services a provider offers to the public . . .").

¹⁸⁰ 47 U.S.C. § 153(24) (including terms "transforming" and "processing" among various other verbs in definition).

or content.”¹⁸¹ “Telecommunications service,” in turn, was the offering of “telecommunications” to the public for a fee.¹⁸²

The larger point of this history is that the statutory language reflected the contemporary understanding that the Internet was something different than the local access network. Textually, the statutory language assumes the existence of a distinct underlying transmission path. For instance, under the 1996 Act, an information service is an “offering of a capability for generating, acquiring, storing, transforming, processing . . . available information *via telecommunications*.”¹⁸³ While it is true that “telecommunications” (defined as transport) is textually distinct from “telecommunications service” (defined in terms of offerings to the public),¹⁸⁴ it is also true that “via telecommunications” was never understood to extend deregulation all the way down the line. As a matter of plain text, information services remained a distinct entity as it had always been.

This assumption is especially clear in light of the FCC’s earlier definition of enhanced services, which included “any offering over the telecommunications network which is more than a basic transmission service.”¹⁸⁵ The non-regulation of “information services” merely continued the historical non-regulation of enhanced services. Enhanced services had never included the local transmission path—and had certainly never transformed the *entire* transmission network into one completely unregulated service. Simply put, policymakers had traditional market structures in mind. The 1996 Act’s definitions therefore incorporate these prior understandings just as statutes often incorporate their settled meanings at common law.¹⁸⁶

Other sections of the 1996 Act similarly reflect the assumption that the Internet was something distinct. Take, for instance, § 230, which creates immunities for “interactive computer services”—a category that includes any type of information service.¹⁸⁷ The *2017 Repeal Order* cites this statute as justification for its light-touch approach.¹⁸⁸ And indeed, § 230 explicitly states a preference for minimal regulation as the statute emphasizes the need “to

¹⁸¹ *Id.* § 153(50).

¹⁸² *Id.* § 153(53).

¹⁸³ *Id.* § 153(24) (emphasis added).

¹⁸⁴ *Id.* § 153(50), (53).

¹⁸⁵ Computer II Final Decision, *supra* note 27, at 420 (comparing “regulatory demarcation between basic and enhanced services”).

¹⁸⁶ *See* Cmty. for Creative Non-Violence v. Reid, 490 U.S. 730, 739 (1989) (“It is, however, well established that [w]here Congress uses terms that have accumulated settled meaning under . . . the common law, a court must infer, unless the statute otherwise dictates, that Congress means to incorporate the established meaning of these terms.” (citations omitted)).

¹⁸⁷ 47 U.S.C. § 230(c).

¹⁸⁸ *See* 2017 Repeal Order, *supra* note 3, at 348-50 (citing various provisions of 47 U.S.C. § 230 in each paragraph).

preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.”¹⁸⁹

Section 230, however, is talking about *destinations*.¹⁹⁰ “The Internet” was something different than the network that merely provided the local access necessary to reach these destinations. Section 230, for instance, notes how the Internet provides “an extraordinary advance in the availability of educational and informational resources to our citizens.”¹⁹¹ In addition, “[t]he Internet and other interactive computer services offer a forum for a true diversity of political discourse, unique opportunities for cultural development, and myriad avenues for intellectual activity.”¹⁹² This is the language of content, not transport. It thus has little relevance to the proper regulatory treatment of local access services in the modern sense.

One source of confusion is the word “access” itself. The *2017 Repeal Order* notes, correctly, that § 230 defines interactive computer service as a “service or system that provides access to the Internet.”¹⁹³ Similarly, it notes that the definition of “Internet access service” in § 231 “does not include telecommunications service.”¹⁹⁴ The implication is that broadband access should therefore also be unregulated. Indeed, the FCC states flatly that “[i]t is hard to imagine clearer statutory language.”¹⁹⁵

The problem, again, is that this view ignores the contemporary understanding of what Congress meant by “access.” The Internet was one of many data services that users could reach through their telephone network connections. “Access” in the 1996 Act was not referring to local access facilities, but to the computers and networks that users were actually trying to reach. It was, in short, a destination. Indeed, the 1996 Act was largely written in 1993 and 1994, well before high-speed broadband access had even emerged.¹⁹⁶ The model that policymakers had

¹⁸⁹ 47 U.S.C. § 230(b)(2).

¹⁹⁰ See *infra* Part I (discussing meaning of “destinations” in this context).

¹⁹¹ 47 U.S.C. § 230(a)(1).

¹⁹² *Id.* § 230(a)(3).

¹⁹³ *Id.* § 230(f)(2) (“The term ‘interactive computer service’ means any information service, system, or access software provider that provides or enables computer access by multiple users to a computer server, including specifically a service or system that provides access to the Internet and such systems operated or services offered by libraries or educational institutions.”).

¹⁹⁴ 47 U.S.C. § 231(e)(4) (“The term ‘Internet access service’ means a service that enables users to access . . . or other services offered over the Internet, and may also include access to proprietary content, information, and other services as part of a package of services offered to consumers. Such term does not include telecommunications services.”); *2017 Repeal Order*, *supra* note 3, at 350-51.

¹⁹⁵ *2017 Repeal Order*, *supra* note 3, at 350 (utilizing § 231 to corroborate legislative intent).

¹⁹⁶ See THE COMMUNICATIONS ACT: A LEGISLATIVE HISTORY OF THE MAJOR AMENDMENTS,

in mind was the structure of data markets from the *Computer Inquiries* era on to the present.

More broadly, and despite its rhetoric, the 1996 Act is full of regulations of local physical networks. While these are not necessarily the most exciting provisions to read, they illustrate how problematic it is to assume the 1996 Act deregulated local access infrastructure.¹⁹⁷ For one, the 1996 Act imposed its most onerous restrictions on so-called incumbent local exchange providers (“ILECs”). These were the companies that used to be part of the old AT&T, and thus had monopoly control of local facilities.¹⁹⁸ Another set of provisions allowed ILECs to enter the long-distance market, but only after they had met a series of requirements to ensure local competition.¹⁹⁹ There are also several zombie provisions—i.e., provisions that never proved important or became technologically irrelevant—that reflect concerns over control of uncompetitive local facilities. For instance, the 1996 Act included provisions requiring “open video systems,”²⁰⁰ separate subsidiaries to offer “telemessaging,”²⁰¹ and restrictions on cable-telephone mergers.²⁰²

The point is not to defend these provisions on policy grounds, but to illustrate background assumptions and historical context. It seems strange that a statute that includes extensive regulation of local facilities would simultaneously deregulate those facilities if they offered access to Internet service. The text, however, does not seem strange at all if we simply assume that the Internet

1934-1996, at 103 (Max D. Paglin ed., 1999) (piecing through detailed histories of The Communications Act).

¹⁹⁷ Even though one of the main goals of the 1996 Act was to introduce more competition with the hopes of ultimately abandoning regulation, it sought to achieve these goals through intensive regulatory interventions and requirements, particularly on the owners of local facilities. The rhetoric of the 1996 Act does not always match the reality of what it actually included. *See supra* Section II.B (noting extensive regulations of common carrier services).

¹⁹⁸ *See* James B. Speta, *Handicapping the Race for the Last Mile?: A Critique of Open Access Rules for Broadband Platforms*, 17 YALE J. ON REG. 39, 65 (2000) (outlining extra requirements for ILECs).

¹⁹⁹ *See* 47 U.S.C. § 271 (“Neither a Bell operating company, nor any affiliate of a Bell operating company, may provide interLATA services except as provided in this section.”).

²⁰⁰ *Id.* § 573(b) (assigning FCC to timely assurance that certain open video systems were not discriminating); Fred H. Cate, *Telephone Companies, the First Amendment, and Technological Convergence*, 45 DEPAUL L. REV. 1035, 1053 (1996) (explaining that telephone companies “offering open video systems to their customers are subject to substantial common carrier-like obligations”).

²⁰¹ 47 U.S.C. § 260 (requiring covered entities which offered telemessaging to comply with specific regulations and access).

²⁰² *See id.* § 572 (specifying limitations on buy-outs generally); Jim Chen, *The Echoes of Forgotten Footfalls: Telecommunications Mergers at the Dawn of the Digital Millennium*, 43 HOUS. L. REV. 1311, 1347 (2007) (“The cable-telephone provisions imposed one of the strongest forms of structural separation in the entire 1996 Act.”).

meant something different—that it referred to something inherently competitive that was accessed *via* this system.

More evidence of this original understanding comes from a 1998 FCC report known in policy circles as the *Stevens Report*.²⁰³ This claim may seem odd at first because the *Stevens Report* is commonly cited as historical support for deregulating broadband access. For instance, the *2017 Repeal Order* argues that the *Stevens Report* rejected “subjecting Internet service providers and other information service providers” to common carrier regulation.²⁰⁴

The *Stevens Report* explores whether Internet service and access providers (“ISPs” and “IAPs”) should contribute to the universal service fund (“USF”).²⁰⁵ Telecommunications companies are required to contribute to the USF, which subsidizes communications services for rural areas, schools, libraries, and low-income Americans.²⁰⁶ The important point is that only telecommunications service providers have to contribute—information services are exempt. Congress had asked the FCC to analyze whether Internet access providers (especially dial-up services like America Online and Earthlink) had to contribute to the USF.²⁰⁷

The *Stevens Report* was the FCC’s answer to this question, concluding that ISPs provided “information services” and were thus exempt.²⁰⁸ It also noted that “information” and “telecommunications” services were mutually exclusive—you could not simultaneously be both.²⁰⁹ At first glance, it is easy to see why the *Stevens Report* provides such strong historical support for deregulating broadband access. After all, the FCC explicitly stated that Internet *access* providers offer information services, and thus cannot possibly offer telecommunications services.

The problem, again, is that this argument ignores the contemporary understanding of “access.” When viewed in context, the *Stevens Report* also assumes the existence of an underlying regulated service. In particular, it was

²⁰³ STEVENS REPORT, *supra* note 28 (discussing ongoing enactments of Communications Act through Congressional meeting).

²⁰⁴ 2017 Repeal Order, *supra* note 3, at 314, 321-22.

²⁰⁵ STEVENS REPORT, *supra* note 28, at 11501-03 (noting Congressional directive to report on these questions).

²⁰⁶ 47 U.S.C. § 254 (determining specifications of USF); *see also* Jonathan S. Adelstein, *Preface*, 13 COMMLAW CONSPECTUS 1, 2 (2004) (“The federal Universal Service Fund supports telecommunications services for rural America, for low income consumers, for schools and libraries, and for rural telemedicine facilities.”).

²⁰⁷ STEVENS REPORT, *supra* note 28, at 11502 & n.1 (requesting report from FCC regarding answers to various remaining question).

²⁰⁸ *Id.* at 11507-08 (“We find generally, however, that Congress intended to maintain a regime in which information service providers are not subject to regulation as common carriers merely because they provide their services ‘via telecommunications.’” (citation omitted)).

²⁰⁹ *See id.*

viewing the question with an eye to dial-up providers—it was not thinking about access providers who owned local facilities. The *Stevens Report* itself notes this assumption clearly and is worth quoting at length:

An Internet access provider, in that respect, is not a novel entity incompatible with the classic distinction between basic and enhanced services, or the newer distinction between telecommunications and information services. In essential aspect, Internet access providers look like other enhanced—or information—service providers. *Internet access providers, typically, own no telecommunications facilities.* Rather, in order to provide those components of Internet access services that involve information transport, they lease lines, and otherwise acquire telecommunications, from telecommunications providers . . . They conjoin the data transport with data processing, information provision, and other computer-mediated offerings, thereby creating an information service. Since 1980, we have classed such entities as enhanced service providers.²¹⁰

Again, for contemporary policymakers, the Internet—even “Internet access”—was a destination that required an underlying transport service.

The *Stevens Report* thus provides strong evidence for how contemporary policymakers viewed both the Internet and Internet access. When the FCC described the Internet (which was relatively new to most people at the time), it did so in terms of its higher-layer content and functions. The FCC explained that “Internet access providers typically provide their subscribers with the ability to run a variety of applications, including World Wide Web browsers, FTP clients, Usenet newsreaders, electronic mail clients . . . and others.”²¹¹ The concept of “Internet access” did not apply to the infrastructure connected to one’s home. It referred instead to the destinations users were trying to reach.

It is true that the report notes that Internet access providers offer “capabilities inextricably intertwined with data transport.”²¹² However, this reasoning aimed to prevent providers such as AOL from being regulated as carriers. The FCC always assumed that these providers would rely on—and purchase services from—regulated telecommunications providers. In this respect, the *Stevens Report* actually provides evidence *against* applying contamination theories to modern broadband access.

In sum, the history of Internet regulation from *Computer Inquiries* through the *Stevens Report* provides little support for regulating broadband access service. The deregulatory policies and rhetoric applied to specific entities. They also took place against the background assumption that local access would remain regulated. Simply put, policymakers at the time were talking about something else. It is problematic to use the deregulation of these services to

²¹⁰ *Id.* at 11540 (emphasis added).

²¹¹ *Id.* at 11537-38.

²¹² *Id.* at 11539-40.

justify deregulation of broadband access. That transition, however, is precisely what began happening at the turn of the century. With the arrival of high-speed broadband, light-touch narratives mutated downward to justify deregulation of local physical access as well. The next Part documents this curious evolution.

III. MUTATIONS: THE EXPANSION OF LIGHT-TOUCH POLICIES

The arrival of high-speed broadband in the late 1990s marked a new stage in the Internet’s regulatory history. For the first time, policymakers expanded deregulatory policies downward to encompass local physical access networks. Policymakers thus deregulated not only the destinations, but the local roads as well. In doing so, they relied heavily on contamination theory as a legal foundation. This Part explains the evolution of the light-touch narrative, noting particularly its reliance on contamination theory. It then critiques this transformation on several grounds.

A. *The Big Shift: Deregulating Broadband Access*

New technologies often put pressure on existing legal frameworks. The rise of high-speed broadband access was no different. This technological shift launched a new phase in Internet policy debates. Prior to the late 1990s, Americans relied on “narrowband” dial-up service through the public telephone network to access the Internet (many businesses had broadband speeds earlier).²¹³ Broadband, by contrast, refers to the shift to a higher-speed access service.

To start, it is important to understand the basic structure of dial-up service from the perspective of a typical user in the 1990s. Customers would call a local number to reach an “Internet Service Provider.”²¹⁴ A modem—either attached to, or embedded within, the computer—would translate the signals to communicate with the ISP’s servers.²¹⁵ The ISP would then connect the user to the Internet as a whole. It would also provide other services such as email, chat rooms, website construction, and portals that curated content.²¹⁶ In this sense,

²¹³ See Edward J. Sholinsky, *Blocking Access to the Information Superhighway: Regulating the Internet Out of the Reach of Low-Income Americans*, 38 RUTGERS L.J. 321, 328 (2006) (“Traditionally, Internet ‘dial-up’ service was available for residential use via ‘narrowband’ telephone lines.”).

²¹⁴ *Brand X Internet Servs. v. FCC*, 345 F.3d 1120, 1123-25 (9th Cir. 2003), *rev’d sub nom.* *Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967 (2005) (providing overview of dial-up market and transition to broadband).

²¹⁵ See *GTE.Net LLC v. Cox Commc’ns*, 185 F. Supp. 2d 1141, 1142 (S.D. Cal. 2002) (“Customers dial into the POP over a telephone line, generally a bank of modems, using the modem [sic] in the residential computer.”).

²¹⁶ See Mark A. Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. REV. 925, 941 (2001) (“Some ISPs further supplement this access with server capabilities—giving users the ability to build web pages on the ISP’s servers or to support more expansive Internet activities.”).

providers like AOL and CompuServe provided both access and content.²¹⁷ The “access” ISPs provided, however, did not include the local facilities that connected users’ homes with the ISPs’ servers. Telephone companies provided these connections. In this respect, the dial-up ISPs were the direct descendants of the older resale and enhanced services which relied on other companies’ local facilities to offer advanced services. Finally, this market was also richly competitive—at one point in the 1990s, thousands of ISPs offered service throughout the country.²¹⁸

In the late 1990s, cable providers disrupted this market. They modified their physical infrastructure to allow for two-way higher-speed transmission.²¹⁹ Faced with this competition, telephone companies responded in kind by introducing DSL service, which also involved modifying their networks to allow for higher-speed transmissions.²²⁰ Initially, some cable companies partnered with traditional ISPs such as Excite@Home.²²¹ Under this arrangement, the cable provider itself would provide the local access infrastructure, while an ISP such as Excite@Home would provide broader Internet access (along with bundled services like email).²²² It soon became clear, however, that cable companies could do everything themselves and be their own ISP. In this respect, the rise of broadband was an existential threat to independent ISPs—one that would ultimately wipe them out.

The rise of cable broadband raised several important legal questions. The most important was how regulators should classify it. As noted earlier, in communications law, labels matter. The regulatory classification determines the scope of permissible regulation. With cable broadband access, the FCC had

²¹⁷ *Id.*

²¹⁸ *Id.* (“Nationwide there are some six thousand ISPs.”).

²¹⁹ See Alfred M. Mamlet & Michael D. Nilsson, *Internet Telephony: Convergence, Conflicts and Confusion*, 7 *CYBERSPACE LAW* 9 (1998) (“Cable systems are rapidly becoming important players in the Internet market. The development of the cable modem, along with the upgrade of cable facilities from traditional one-way coaxial networks to broadband, two-way hybrid fiber-coaxial (‘HFC’) systems, has positioned cable operators as potential providers of “last mile” broadband services.”).

²²⁰ Steve Bickerstaff, *Shackles on the Giant: How the Federal Government Created Microsoft, Personal Computers, and the Internet*, 78 *TEX. L. REV.* 1, 76 (1999) (describing how telephone companies adapted existing networks to provide DSL service).

²²¹ See *AT&T Corp. v. City of Portland*, 216 F.3d 871, 874 (9th Cir. 2000) (“Since acquiring TCI, AT&T has continued to offer cable broadband access as part of its ‘@Home’ service, which bundles its cable conduit with Excite, an Internet service provider (‘ISP’) under an exclusive contract.”).

²²² Kevin Werbach, *A Layered Model for Internet Policy*, 1 *J. TELECOMM. & HIGH TECH. L.* 37, 52 (2002) (describing cable companies’ relationships with ISPs).

several choices.²²³ First, it might be a “cable service.”²²⁴ This option was never really accepted. Cable was traditionally understood as a one-way service, whereas the Internet necessarily requires two-way transmission.²²⁵ Another option was that cable broadband access might be a telecommunications service—a classification that would trigger common carrier requirements. A final option was that cable broadband might be an information service, which means it would be largely unregulated.²²⁶

The contemporary debate surrounding “open access” illustrates the concrete implications of this seemingly abstract debate over classifications. Open access is the ancestor of the network neutrality debates that would come later.²²⁷ The basic idea was that, under open access requirements, broadband access providers would be required to give “access” to any independent ISP.²²⁸ In this sense, it was an attempt to preserve the contemporary market structure where users could continue picking their individual ISP. Independent ISPs, like Earthlink, supported open access because they saw the writing on the wall—they owned no local facilities, and cable and DSL providers no longer needed them.²²⁹ Cable providers opposed open access measures, arguing that these regulations would reduce their investment incentives and were technically unworkable.²³⁰

²²³ Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, 15 FCC Rcd. 19287, 19293 (2000) (notice of inquiry) [hereinafter 2000 Cable Modem Inquiry] (“Indeed, there may be a number of regulatory approaches possible, from treating cable modem service and/or the cable modem platform as a cable service subject to Title VI; as a telecommunications service under Title II; as an information service subject to Title I; or some entirely different or hybrid service subject to multiple provisions of the Act.”).

²²⁴ For a good overview from the contemporary perspective, see Esbin, *supra* note 168, at 94-99 (examining how broadband could be classified as cable service under several statutory interpretations).

²²⁵ *City of Portland*, 216 F.3d at 876-77 (“[U]nlike transmission of a cable television signal, communication with a Web site involves a series of connections involving two-way information exchange and storage . . .”).

²²⁶ See 2000 Cable Modem Inquiry, *supra* note 223, at 19293 (stating that classifying broadband as information service was under consideration).

²²⁷ Kevin Werbach, *Only Connect*, 22 BERKELEY TECH. L.J. 1233, 1275 (2007) (“[T]oday’s network neutrality argument grew out of an interconnection-focused antecedent: broadband open access.”).

²²⁸ See Harold Feld, *Whose Line Is it Anyway? The First Amendment and Cable Open Access*, 8 COMM.LAW CONSPECTUS 23, 23-25 (2000) (describing fight over open access in context of First Amendment).

²²⁹ Earthlink, Inc., Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, at VII (Dec. 1, 2000) [hereinafter Earthlink Comments], [<https://perma.cc/8E2P-DFWV>] (supporting open access requirements).

²³⁰ See, e.g., National Cable Television Assoc., Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities 2-3 (Dec. 1, 2000) [hereinafter NCTA Comments], [<https://perma.cc/8EKP-QNHX>] (opposing open access requirements).

The crucial point for our purposes here, however, was that everything depended on the regulatory classification. If cable broadband was an information service, there could be no open access requirements. If, by contrast, it was a telecommunications service, there could be. The classification question, however, had broader implications than open access itself. Indeed, the modern network neutrality debates are in many respects a question of classification.²³¹ In the late 1990s, that question remained unresolved.

Federal courts were the first to offer an answer. In 2000, the Ninth Circuit held that cable broadband was not a “cable service” and thus invalidated the City of Portland’s efforts to impose open access requirements via its authority over cable companies.²³² More importantly, the court found that cable broadband included both a distinct telecommunications offering and an information services offering.²³³ The court’s explanation reflects the contemporary understanding:

Like other ISPs, @Home consists of two elements: a “pipeline” (cable broadband instead of telephone lines), and the Internet service transmitted through that pipeline. However, unlike other ISPs, @Home controls all of the transmission facilities between its subscribers and the Internet. To the extent @Home is a conventional ISP, its activities are one of an information service. However, to the extent that @Home provides its subscribers Internet transmission over its cable broadband facility, it is providing a telecommunications service as defined in the Communications Act.²³⁴

This finding simply reflected the traditional structure of the ISP market—local access facilities were something different than the Internet more generally. And up until that point, different companies had always provided these different services.

In response, the FCC finally opened a proceeding in 2000 to settle the classification question.²³⁵ For purposes here, the most important question was whether cable broadband was a telecommunications service or an information service. Open access issues loomed large in the proceeding, but the classification questions are more relevant today.

²³¹ See 2017 Repeal Order, *supra* note 3, at 312 (discussing FCC’s reclassification decisions).

²³² See *AT&T Corp. v. City of Portland*, 216 F.3d 871, 877 (9th Cir. 2000) (holding that transmission of Internet services was not cable service).

²³³ *Id.* at 877 (“Under the statute, Internet access for most users consists of two separate services.”).

²³⁴ *Id.* at 878.

²³⁵ See 2000 Cable Modem Inquiry, *supra* note 223, at 19287 (“[W]e seek to determine what regulatory treatment, if any, should be accorded to cable modem service and the cable modem platform used in providing this service.”).

Many parties filed comments in response to the FCC’s inquiry. Cable providers and deregulatory advocates argued that cable broadband should be an unregulated information service.²³⁶ One interesting aspect of these comments is how they readapted the Internet’s regulatory history to support their arguments. Many equated cable broadband with earlier enhanced, dial-up and higher-layer services that the FCC had never regulated. For instance, Cox argued that its services “offer end users the same Internet connectivity and applications as ISPs such as Earthlink and AOL.”²³⁷ These services included the ability to “retrieve . . . information from web sites,” “e-mail applications,” “file downloads,” and “home pages [with] content that is selected and made available by the cable operator, including local weather, sports and news.”²³⁸ AT&T (a different entity than today’s) argued that cable Internet services “transmit information *chosen by the cable operator*.”²³⁹ Again, this is the language of content and curation. The narrative was repurposed to equate cable broadband with the category of services that were traditionally unregulated. As NCTA (the cable industry trade association) explained, “[t]he decision not to regulate information services dates back more than 30 years.”²⁴⁰

Deregulatory advocates also relied heavily on contamination theory. Cable broadband, they claimed, integrated elements of both telecommunications and information services, and thus the entire service should be seen as an information service. For instance, Comcast explained that “[u]nder *Computer II*, the [FCC] developed the ‘contamination doctrine’ to preserve the non-regulated status of enhanced services providers.”²⁴¹ Cox and NCTA—citing *Computer II* and the *Stevens Report*—both argued that the presence of a telecommunications component does not transform the overall information service, which is an integrated offering.²⁴² In this respect, advocates were again readapting older

²³⁶ See, e.g., Comcast Corporation, Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities 3 (Dec. 1, 2000) [hereinafter Comcast 2000 Comments], [<https://perma.cc/3GD8-CTQE>] (arguing that Congress intended Internet to be unregulated information service); Cox Communications, Inc., Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities 28-30 (Dec. 1, 2000) [hereinafter Cox Comments], [<https://perma.cc/A93K-GR28>] (arguing that Cox’s cable data services are functionally equivalent to other Internet services that FCC had classified as information services); NCTA Comments, *supra* note 230, at 8-13 (arguing, among other things, that because Internet access providers make content available as opposed to simply transmission services, cable modem service is information service).

²³⁷ Cox Comments, *supra* note 236, at 29.

²³⁸ *Id.*

²³⁹ AT&T Corp., Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities 21 (Dec. 1, 2000) [hereinafter AT&T Comments] (emphasis added), [<https://perma.cc/4EN6-4VJU>].

²⁴⁰ NCTA Comments, *supra* note 230, at 23.

²⁴¹ Comcast 2000 Comments, *supra* note 236, at 30.

²⁴² See Cox Comments, *supra* note 236, at 39 (“[C]able Internet services are offered ‘via telecommunications,’ consistent with the statutory definition, just like the information

concepts for a new purpose. They were implicitly equating cable broadband with earlier enhanced and resale providers that had combined their services with the telephone carrier's local facilities.

Many commenters at the time, however, argued that cable broadband did include a distinct telecommunications service. Interestingly, these commenters raised one of the central arguments of this Article—namely, that local access is and always has been distinct from the Internet itself. Adopting this argument, the Texas Public Utility Counsel distinguished between “Internet services” and the “*transmission* of Internet services.”²⁴³ Earthlink argued that applying contamination theory to cable broadband would “disavow[] over twenty years of Commission precedent” and contradict the *Stevens Report*, as properly read.²⁴⁴ It also detailed at length the legal and technological distinctions between “transport and Internet access.”²⁴⁵ It noted that the FCC, at that point in time, had always rejected applying contamination theory to carriers who owned local access facilities.²⁴⁶

In the *2002 Cable Modem Order*, the FCC finally answered the question. It formally classified cable broadband as an information service.²⁴⁷ The service would therefore be lightly regulated at best, but would definitely be exempt from traditional common carrier requirements under Title II.²⁴⁸

For purposes here, the most important part of the *2002 Cable Modem Order* was its rationale. Interestingly, the FCC relied heavily on contamination theories to justify its legal decision. Citing the *Stevens Report*, the FCC found that cable broadband access is a “single, integrated service” that combines transmission with information services.²⁴⁹ It thus rejected arguments, such as Earthlink's, that

services offered by other ISPs.”); NCTA Comments, *supra* note 230, at 27-28 (arguing that FCC has chosen not to separate “communications component” from “data processing component” of Internet services).

²⁴³ Texas Office of Public Utility Counsel, Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, 8 (Dec. 1, 2000), [<https://perma.cc/4G8H-4MUP>] (arguing that Internet services are information services while transmission is a telecommunications service).

²⁴⁴ Earthlink Comments, *supra* note 229, at V (arguing that FCC has always classified information services as those that are provided over common carrier transmission service).

²⁴⁵ *Id.* at 19-24 (arguing that while Internet access was an information service, issue at hand was transport of information through a cable modem, which constituted telecommunications service).

²⁴⁶ *Id.* at 34-35 (“[T]he Communications Act . . . recognizes that information services like Internet access are *always* provided over a facilities-based common carrier telecommunications service that is subject to Title II of the Act.”).

²⁴⁷ See *2002 Cable Modem Order*, *supra* note 30, at 4802 (“[W]e conclude that cable modem service, as it is currently offered, is properly classified as an interstate information service . . .”).

²⁴⁸ *Id.* at 4848 (“[W]e believe that forbearance from the requirements of Title II and common carrier regulation is appropriate in this circumstance.”).

²⁴⁹ *Id.* at 4823 (describing cable modem service as “comprehensive service offering”).

it should find “a telecommunications service inside every information service.”²⁵⁰ Cable companies were not providing “raw” transmission capacity to the public—they were merely supplying themselves with telecommunications to offer a single unified service.²⁵¹ And as the *Stevens Report* had concluded, these categories are mutually exclusive.²⁵² If cable service was one thing, it necessarily couldn’t be another.

The FCC also cited specific services to justify its conclusion about integration. Cable service, the FCC explained, was a “single, integrated service” that “combines the transmission of data with computer processing . . . [and] enable[s] end users to run a variety of applications.”²⁵³ This variety included “such functions as e-mail, newsgroups, maintenance of the user’s World Wide Web presence, and the DNS.”²⁵⁴ Thus, for the FCC, what you did on the Internet was inextricably intertwined with the local pipe that provided you access. Policymakers, however, had never understood or applied contamination theory in this way.

In *Brand X*, the Supreme Court upheld the 2002 *Cable Modem Order* as a permissible interpretation of the Communications Act—but it was close.²⁵⁵ The challengers claimed that the FCC’s decision had violated the 1996 Act.²⁵⁶ Specifically, they argued that cable broadband was a “telecommunications service” offering and that the statute could not be read to treat the entire offering as a single information service.²⁵⁷ Applying *Chevron U.S.A., Inc. v. NRDC*,²⁵⁸ the Court found the statute to be ambiguous and deferred to the FCC’s interpretation.²⁵⁹

²⁵⁰ *Id.* at 4825 (stating that to “extract” telecommunications service from every information service so that it could be regulated would be “radical surgery”).

²⁵¹ *See id.* at 4824 (“In the case of cable modem service, we do not believe that the fact that cable modem service is provided over the cable operator’s own facilities, without more, necessarily creates a telecommunications service separate and apart from the cable modem service.”).

²⁵² *See supra* note 209 and accompanying text.

²⁵³ 2002 Cable Modem Order, *supra* note 30, at 4822-23.

²⁵⁴ *Id.* at 4822.

²⁵⁵ *Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 974 (2005) (holding that conclusion “that cable companies that sell broadband Internet service do not provide ‘telecommunications service’ . . . is a lawful construction of the Communications Act”). The ultimate vote was 6-3. *Id.* at 972.

²⁵⁶ *Id.* at 995 (noting argument of challengers that Communications Act requires heavier regulation of cable companies).

²⁵⁷ *Id.* at 994 (noting argument of challengers that “Communications Act unambiguously classifies as telecommunications carriers all entities that use telecommunications inputs to provide information service”).

²⁵⁸ 467 U.S. 837, 845 (1984).

²⁵⁹ *Brand X*, 545 U.S. at 996-97 (finding that Communication Act “fails unambiguously to classify facilities-based information-service providers as telecommunications-service offerors” and that “Commission’s construction was ‘a reasonable policy choice for the

More substantively, the Court's decision relied on the contamination theory.²⁶⁰ It accepted the FCC's argument that cable broadband could reasonably be seen as inextricably integrating telecommunications and information services.²⁶¹ In doing so, it referred back to "information-processing capabilities" such as the abilities "to browse the World Wide Web, to transfer files from file archives available on the Internet via the 'File Transfer Protocol,' and to access e-mail and Usenet newsgroups."²⁶²

In dissent, Justice Scalia and two other Justices disagreed on these specific points.²⁶³ They would have held that cable broadband quite clearly included a distinct telecommunications service for purposes of the 1996 Act.²⁶⁴ Justice Scalia famously analogized it to a pizza delivery service.²⁶⁵ To him, the delivery (or transmission) of the pizza to the house was something distinct from the pizza itself.²⁶⁶ The mere fact that the pizza service includes delivery does not transform the entire service into one undifferentiated mass. The Court, however, rejected this argument, concluding that the expert agency was in a better position to answer the technical questions of what constitutes integration.²⁶⁷

With the blessing *Brand X* provided, the FCC was now free to expand deregulation to all other forms of broadband access. And so it did. In a short span, the FCC adopted orders classifying DSL, wireless broadband, and broadband-over-electric-lines as information services.²⁶⁸ The foundation of the

[Commission] to make'") (citing *Chevron U.S.A., Inc.*, 467 U.S. at 845)).

²⁶⁰ *See id.* at 990.

²⁶¹ *See id.* (holding "transmission component of cable modem service is sufficiently integrated with the finished service to make it reasonable to describe the two as a single, integrated offering").

²⁶² *Id.* at 987, 990 (reasoning that transmission component and finished service are sufficiently integrated because "[a] consumer uses the high-speed wire always in connection with the information-processing capabilities provided by Internet access").

²⁶³ *See id.* at 1005-06 (Scalia, J., dissenting) (arguing that FCC's reading of statute improperly claims that cable companies do not offer telecommunication services).

²⁶⁴ *Id.* at 1008 ("[T]he telecommunications component of cable-modem service retains such ample independent identity that it must be regarded as being on offer.").

²⁶⁵ *See id.* at 1007-08 (arguing that individual components of larger package do not always lose separate identity).

²⁶⁶ *Id.* at 1007.

²⁶⁷ *See id.* at 991-92, 1002-03 (majority opinion).

²⁶⁸ *See* Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks, 22 FCC Rcd. 5901, 5901 (2007) (declaratory ruling) (deregulating wireline broadband access); United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service, 21 FCC Rcd. 13281, 13281 (2006) (opinion and order) (deregulating broadband over power lines); Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, 20 FCC Rcd. 14853, 14855 (2005) (report and order and notice of proposed rulemaking) (deregulating DSL access).

entire regime, however, was the *2002 Cable Modem Order*, which itself relied on contamination theory for its legal authority.

B. *Critiquing the Shift*

The *2002 Cable Modem Order* represented a radical break with the past. For the first time in the history of the Internet, the FCC expressly held that local access facilities were not subject to common carrier requirements.²⁶⁹ Indeed, one of this Article’s central arguments is that this radical break was characterized in fundamentally conservative terms as a continuation with history. The remainder of this Section offers three separate critiques of this regulatory shift. First, the regulatory shift was premised on a misunderstanding of the Internet. Second, it was premised on economic and technological assumptions that no longer apply. Finally, parties today who invoke the *2002 Cable Modem Order* to justify deregulation overlook how much residual regulation of broadband access remained in place.

1. *Misunderstanding the Internet*

The first critique is that policymakers premised their key decisions on misunderstandings about how cable broadband worked. They often viewed this technology through the lens of the older Internet. Instead of recognizing that cable broadband was more closely related to local telephone facilities, they instead analogized it to older enhanced and dial-up services.²⁷⁰

In doing so, policymakers ignored basic network engineering principles. Traditional models of the Internet network use the concept of “layers” within a “network stack.”²⁷¹ Different layers of the network are responsible for different functions.²⁷² Lower layers of the stack—e.g., the physical, link, and network layers—provide physical transmission and routing. Higher layers of the stack—e.g., the application layer—facilitate the services and content that people are actually trying to reach.²⁷³ Take Netflix for instance. The lower layers of the network stack transmit and route Netflix packets, much like the Post Office uses roads, trucks, and zip code protocols to move letters across the country. But these layers have nothing to do with the functions that actually open Netflix on your devices—just like the Post Office service does not include the opening of letters

²⁶⁹ See *2002 Cable Modem Order*, *supra* note 30, at 4802.

²⁷⁰ See *supra* Section II.A (arguing that policymakers incorrectly relied on contamination theory).

²⁷¹ See Internet Engineers Comments, *supra* note 99, at 7; JAMES K. KUROSE & KEITH W. ROSS, *COMPUTER NETWORKING: A TOP-DOWN APPROACH* 84-85 (7th ed. 2017).

²⁷² Internet Engineers Comments, *supra* note 99, at 7.

²⁷³ *Id.* at 7-8 (describing functions of different layers); KUROSE & ROSS, *supra* note 271, at 83 (describing content that functions on application layer).

and packages.²⁷⁴ In this sense, the lower layers provide the road, while the higher-layer services provide the actual destinations.

Economically, these layers also have very different cost structures. Higher-layer services have extremely low entry costs—indeed, they only require a computer and code. Lower-layer services, by contrast, require the construction of physical transmission facilities.²⁷⁵ These costs are particularly high for local facilities because of the immense barriers to entry.²⁷⁶ The current marketplace reflects these dynamics quite clearly. Most communities have only one or two options for high-speed broadband access.²⁷⁷ But there are literally an infinite number of destinations (social media, streaming sites, blogs, cloud services, website, etc.) one can reach via that access. The dynamic is similar to the difference between the electricity provider and the diversity of items that can be plugged into the electric network.

The problem, then, with key decisions of the early 2000s was that policymakers mixed up the layers. Broadband access in the modern sense takes place at the lower layers of the network.²⁷⁸ Services such as email, cloud services, social media, video streaming, and everything else people actually use the Internet for are implemented within the higher layers of the network.²⁷⁹ The 2002 *Cable Modem Order*, however, conflates broadband access and higher-layer services. It cites higher-layer services to justify deregulation of lower-layer physical access. As noted earlier, the FCC described cable service as offering “such functions as e-mail, newsgroups, maintenance of the user’s World Wide Web presence, and the DNS.”²⁸⁰ Cable broadband access provides none of these services—it provides a transmission path to obtain all of these services.²⁸¹ It is therefore a mistake to cite the richly competitive services at the higher layers to justify the deregulation of an inherently uncompetitive technology at the lower levels, especially at the local level.

One source for this confusion was likely that the FCC saw cable broadband through the lens of the existing dial-up market. For them, cable broadband was simply another, faster, type of ISP. The 2002 *Cable Modem Order* explained:

²⁷⁴ See 2015 Title II Order, *supra* note 2, at 5773-74 (noting view of engineers that “lower layers . . . do not rely on the services provided by the higher layers”).

²⁷⁵ See Whitt, *supra* note 43, at 417 (describing “high up-front fixed capital investments” of providing broadband).

²⁷⁶ See *supra* note 53 and accompanying text (discussing costs of building local access facilities).

²⁷⁷ See Brodtkin, *supra* note 43 (noting eighty-five percent of developed Census blocks had zero or one internet service providers offering high speed internet).

²⁷⁸ Whitt, *supra* note 43, at 430 (noting that “broadband is at Layers 0-2”).

²⁷⁹ *Id.* (noting that “one should think of the Internet metaphorically as ‘riding on top of’ broadband networks . . . at Layers 3 and above”).

²⁸⁰ 2002 *Cable Modem Order*, *supra* note 30, at 4822.

²⁸¹ See Whitt, *supra* note 43, at 429-30 (distinguishing between broadband and Internet).

Cable operators often include in their cable modem service offerings all of the services typically provided by Internet access providers, so that subscribers usually do not need to contract separately with another Internet access provider to obtain discrete services or applications, such as an e-mail account or connectivity to the Internet, including access to the World Wide Web. Subscribers typically have “click-through” access to any and all content and services available on the Internet.²⁸²

These same mistakes apply to contamination theory. Policymakers used contamination theory in a way that ignored both the history and the realities of network engineering.²⁸³ The mere fact that cable companies also provided email did not transform the access service as a whole into an integrated information service. The problem was that contamination theory—like the re-engineered dinosaurs in *Jurassic World*—never belonged in this world.²⁸⁴ The concepts emerged much earlier in the specific context of resale and dial-up services that relied on regulated local facilities. The original concept was designed to prevent competitive computer services from being regulated as common carriers. It was never intended to deregulate local access facilities, which were different in all of the various dimensions described above.²⁸⁵ In fact, when the idea first emerged in the 1990s, the FCC strongly rejected the effort in its *Frame Relay Order*.²⁸⁶

These mistakes are especially important given that the Supreme Court relied heavily on contamination theory to uphold the *2002 Cable Modem Order*. In doing so, the Court cited integration with higher-layer services such as email and file transfer to justify the FCC’s decision to deregulate the lower-layer access.²⁸⁷ Specifically, it referred back to “information-processing capabilities” such as the abilities “to browse the World Wide Web, to transfer files from file archives available on the Internet via the ‘File Transfer Protocol,’ and to access e-mail and Usenet newsgroups.”²⁸⁸ Like the FCC, the Court effectively found that the destinations were intertwined with the roads themselves.²⁸⁹

The Court’s reasoning also depended on a misunderstanding of traditional networks. Noting that the 1996 Act should be read in light of the “background

²⁸² 2002 Cable Modem Order, *supra* note 30, at 4806 (footnote omitted).

²⁸³ See text accompanying notes 109, 110 (arguing that deregulation of enhanced services assumed regulation of underlying services).

²⁸⁴ See *supra* note 40 and accompanying text.

²⁸⁵ See *Frame Relay Order*, *supra* note 154, at 13723 (describing “application of the contamination theory to a facilities-based carrier” as “obviously an undesirable and unintended result”).

²⁸⁶ *Id.* (noting that contamination theory “applies only to nonfacilities-based service providers”).

²⁸⁷ See *Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 990 (2005) (finding that services “are sufficiently integrated”).

²⁸⁸ *Id.* at 987, 990.

²⁸⁹ See *id.* at 990 (citing 2002 Cable Modem Order, *supra* note 30, at 4822-23).

of this regulatory history,” it then proceeded to conflate different periods of that history.²⁹⁰ The Court noted that the FCC “has long held that ‘all those who provide some form of transmission services are not necessarily common carriers.’”²⁹¹ These holdings, however, only applied to entities that did not own local access facilities. The Supreme Court noted this objection, but dismissed it by rejecting the claim that “the Communications Act unambiguously freezes in time the *Computer II* treatment of facilities-based information-service providers.”²⁹² This reasoning, however, ignores the vast legal, economic, and technological distinctions that have always separated the different layers of services.

In sum, to the extent modern policy relies on a combination of the *2002 Cable Modem Order* and *Brand X*, the entire edifice is founded upon a mistake.

2. Outdated Assumptions

The layer confusion above is the central problem with both the *2002 Cable Modem Order* and contamination theory more broadly. Not everyone, however, made these mistakes. Many deregulatory advocates understood perfectly well that local access was distinct from the Internet as a whole.²⁹³ To them, however, broadband access should be deregulated for instrumental reasons. Cable broadband was a promising new service that should be left alone in order to encourage its development or simply out of regulatory humility.²⁹⁴

This approach gives rise to a more defensible version of the light-touch narrative today. Specifically, one could more plausibly argue that broadband was simply a brand new *sui generis* service.²⁹⁵ From 2002 forward, the FCC has chosen to avoid common carrier regulations for this new dynamic service. Accordingly, this view suggests policymakers today should follow the tradition of non-regulation which has proven very successful.

There are, however, several problems with even this more defensible narrative. Primarily, these decisions took place under specific background assumptions that no longer apply. Contemporary parties made these arguments

²⁹⁰ *Id.* at 992.

²⁹¹ *Id.* at 993 (quoting *Computer II* Final Decision, *supra* note 27, at 431).

²⁹² *Id.* at 996.

²⁹³ See Competition Policy Institute, Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities 6 (Dec. 1, 2000) [hereinafter CPI Comments], [<https://perma.cc/CXD8-QGD3>] (distinguishing between “transport” and “content”).

²⁹⁴ See *id.* at 1-2 (concluding that “no further regulation action is needed at this time”); Telecommunications Industry Assoc., Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities 3 (Dec. 1, 2000), [<https://perma.cc/Q4QP-8S2E>] (supporting no regulation on “still evolving high-speed and broadband access platforms and services”).

²⁹⁵ See CPI Comments, *supra* note 293, at 2 (“[T]he newness of these services reflects the newness of the Internet and its applications.”).

in a market that they assumed was richly competitive.²⁹⁶ At the time, there were thousands of ISPs and cable broadband was relatively limited.²⁹⁷ Thus, it is understandable that many deregulatory advocates believed in good faith that market forces would discipline any anticompetitive abuses.

Broadband also emerged at a time where it seemed like multiple local access options would soon be available. Many advocates noted that cable broadband faced—or would soon face—potential competition from DSL, fiber, wireless, satellite, and even electricity providers.²⁹⁸ This diversity would not only protect users, it would allow ISPs to ally with different types of access providers. In this sense, competition was the answer to the open access debate, which was the primary policy fight at the time.

Today, we know better. Broadband access at the local level is not a competitive service, and the old ISPs are gone. To be more precise, *high-speed* broadband is not competitive.²⁹⁹ It is true that DSL and wireless access provides alternatives; however, those services cannot match the speeds and reliability of cable broadband. In the age of streaming video and cord-cutting, it is more important than ever to have high-speed broadband. And in that market, cable is

²⁹⁶ See Mercatus Center at George Mason University, Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities 1 (Dec. 1, 2000) [hereinafter Mercatus Comments], [<https://perma.cc/B8D5-4FA9>] (“The broadband market . . . is anything but a monopoly.”); Information Tech. Industry Council, Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, 5 (Dec. 1, 2000) [hereinafter ITI Comments], [<https://perma.cc/DR2M-9D62>] (“[C]able modem services remain only a small part of the total Internet access market.”); Verizon, Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities 3 (Dec. 1, 2000), [<https://perma.cc/XWE7-G8RF>] (“The Commission has repeatedly found that the residential broadband access market is competitive.”).

²⁹⁷ See Raymond Shih Ray Ku, *Open Internet Access and Freedom of Speech: A First Amendment Catch-22*, 75 TUL. L. REV. 87, 116 (2000) (“With respect to Internet access in general, cable ISPs are only a few of the thousands of Internet service providers, and the vast majority of Americans access the Internet through the simplest and least expensive avenue—the telephone.”).

²⁹⁸ See AT&T Comments, *supra* note 239, at 43 (noting potential of DSL, satellite, and wireless); Mercatus Comments, *supra* note 296, at 8-9 (describing competition in broadband market); Progress and Freedom Foundation, Comment Letter on Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities 6-8 (Dec. 1, 2000), [<https://perma.cc/F9U4-UXQL>] (outlining competition cable broadband faces and will face).

²⁹⁹ FCC, INDUS. ANALYSIS AND TECH. DIV., INTERNET ACCESS SERVICES: STATUS AS OF DECEMBER 31, 2016, at 6, 24, [<https://docs.fcc.gov/public/attachments/DOC-349074A1.pdf>] [<https://perma.cc/JJ6R-KYBB>] (showing both lack of competition and cable dominance at speeds of 100 mbps and higher); see Brodtkin, *supra* note 43; Jon Brodtkin, *US Broadband: Still No ISP Choice for Many, Especially at Higher Speeds*, ARS TECHNICA (Aug. 10, 2016, 11:43 AM), [<https://arstechnica.com/information-technology/2016/08/us-broadband-still-no-isp-choice-for-many-especially-at-higher-speeds>] [<https://perma.cc/LC8Q-LRZL>] (showing percentage of households with choice of high-speed broadband providers).

dominant.³⁰⁰ This lack of competition is not surprising. It is exactly what economic theory would predict for services—like local access networks—that are characterized by massive barriers to entry. Moving forward, there is also little reason to think that any new platforms will emerge that can provide real competition for the types of speeds cable can—and will—provide. As Professor Susan Crawford wrote, cable broadband should be understood as a modern utility service with monopoly power.³⁰¹

Another background assumption was that ISPs would remain sources of content and other higher-layer services. Indeed, contemporary ISPs marketed themselves in terms of the services they provided—email, website construction, file transfer, and access to the “Web.”³⁰² Today, however, consumers view broadband access providers in terms of transmission. The providers themselves market services in terms of the speeds and reliability of the service.³⁰³ The content and services that older ISPs traditionally marketed is now offered almost entirely by third-parties (e.g., Gmail and Dropbox) accessed via a user’s broadband access service.³⁰⁴

3. Overlooked History

The third critique is less about the FCC’s regulatory shift than the way that shift is described in modern policy debates. As noted above, the more narrow version of the light-touch narrative focuses only on *broadband* access. This story thus begins with the *2002 Cable Modem Order* when the FCC made the initial decision to exempt broadband from common carrier regulation.³⁰⁵ Under this

³⁰⁰ Brodtkin, *supra* note 299 (showing that cable provides vast majority of residential fixed connections of high-speed internet to households).

³⁰¹ See SUSAN P. CRAWFORD, CAPTIVE AUDIENCE: THE TELECOM INDUSTRY AND MONOPOLY POWER IN THE NEW GILDED AGE 17, 113 (2013) (arguing telecommunications services are “natural monopoly services” and noting vast cable power).

³⁰² Internet Engineers Comments, *supra* note 99, at 17 (“In the early days of Internet access, customers frequently chose which ISP to subscribe to based on the content and information services that ISP supplied in addition to general Internet access.”); Lemley & Lessig, *supra* note 216, at 941 (noting importance of ISPs is “in the range of services they might bundle and offer competitively”).

³⁰³ See 2015 Title II Order, *supra* note 2, at 5755 (“That broadband Internet access services today are primarily offerings of Internet connectivity and transmission capability is further evident by how these services are marketed and priced.”).

³⁰⁴ Internet Engineers Comments, *supra* note 99, at 13 (“[T]he overwhelmingly vast majority of those services were not actually created by ISPs and are not offered by ISPs. They are offered by third parties that the customer simply wants to transmit data to and receive data from—without interference by their ISP.”).

³⁰⁵ The FCC’s *2017 Repeal Order* seems at times to adopt a version of this story, but it starts the clock with the 1996 Act, which is misleading. In other words, at times it suggests that the 1996 Act was the beginning of the light-touch regime. See *2017 Repeal Order*, *supra* note 3, at 312 (“In the 2015 *Title II Order*, the Commission abandoned almost twenty years of precedent.”).

version, the light-touch regime continued unbroken until 2015 when the Obama-era FCC reclassified broadband access as a telecommunications service. The radical break with history, accordingly, came in 2015.

This narrative, however, is also misleading. Specifically, it ignores the extent to which access service remained regulated after 2002. This criticism, though, depends on how precisely the history is being used. If the claim is simply that broadband access was not a formal “telecommunications service” during this period, that is true.³⁰⁶ However, to the extent the history creates an impression that broadband access was wholly unregulated during this time, that view is simply incorrect. As I explain below, the *2015 Title II Order* was not a radical break at all, but a continuation of decades-old norms of oversight that continued to apply during this period.

Most broadly, we must remember the importance of the pre-existing norms that common carrier protections created. Cable broadband did not emerge in a vacuum. It developed in the context of a market where neutrality was an unspoken background assumption. The contrast, for instance, with a more closed industry like cable television is striking. It is easy to forget that network neutrality did not start with the *2015 Title II Order*. Network neutrality was embedded in the laws, norms, and architecture of the Internet from its inception.³⁰⁷ These norms, I argue, are the direct result of the Internet having emerged in a network with common carrier protections for end users and edge services. Thus, common carrier norms continued to cast a wide shadow on the broadband industry regardless of any formal classification. (The reaction to Comcast’s violation of these norms in 2007—discussed below—illustrates their continuing effect).

More concretely, however, the FCC did not wholly abandon oversight from 2002 to 2015. First, because of a stay, the *2002 Cable Modem Order* did not formally take effect until 2005 when the Supreme Court upheld it in *Brand X*.³⁰⁸ Even at that point, however, the Bush-era FCC made it clear that it was not abandoning oversight of access services. When it deregulated DSL access following *Brand X*, it released a policy statement promising to protect various principles of openness and neutrality.³⁰⁹ Specifically, it cited a different form of

³⁰⁶ It is worth noting, however, that many rural carriers providing DSL could continue operating it as a telecommunications service. *See* 2015 Title II Order, *supra* note 2, at 5613 (“Title II has been maintained by more than 1000 rural local exchange carriers that have chosen to offer their DSL and fiber broadband services as common carrier offerings.”).

³⁰⁷ *See* Kevin Werbach, *Off the Hook*, 95 CORNELL L. REV. 535, 548 (2010) (describing view that “government rules expressly prevented network operators from discriminating against users of their networks from the nineteenth-century precursors of the Communications Act”).

³⁰⁸ Petition for Writ of Certiorari at 16, *Nat’l Cable & Telecomms. Ass’n v. Brand X*, 545 U.S. 967 (2005) (No. 04-277), 2004 WL 1944011 (noting that Ninth Circuit “stayed its mandate pending the filing of a petition for certiorari”).

³⁰⁹ *See* Appropriate Framework for Broadband Access to the Internet, 20 FCC Rcd. 14986,

statutory authority to protect the “Four Principles” under which users should have the freedom to access content, applications, and devices of their choice along with the right to benefit from competition.³¹⁰

At first, it was unclear whether these principles had teeth. It was possible the FCC was only paying lip service to neutrality. As it turned out, they were not. In 2007, Comcast was caught blocking BitTorrent traffic, but the company initially claimed that it did not block the traffic.³¹¹ Later, Comcast admitted to a limited form of blocking, though that claim too, however, turned out to be wrong.³¹² The FCC stated that it could file an enforcement action against Comcast under its residual Title I statutory authority.³¹³ A federal court ultimately found that the FCC lacked the authority to do so.³¹⁴

For purposes here, there are two important points to take away from the Comcast proceedings. First, it sent a clear signal that the FCC would continue to oversee the broadband access market. The enforcement proceedings therefore undermine claims that the FCC had basically abandoned the field after 2002. Second, it shows the important role that common carrier norms continued to play after 2002. Following Comcast’s revelations, advocacy groups filed complaints against the company and the FCC initiated a proceeding that drew thousands of comments.³¹⁵ There was a large outcry of protest. The interest was so high that the FCC scheduled multiple hearings in response.³¹⁶ Indeed, Comcast initially tried to deny the complaints. These reactions show that the common carrier

14988 (2005) [hereinafter Internet Policy Statement] (“The Commission has a duty to preserve and promote the vibrant and open character of the Internet as the telecommunications marketplace enters the broadband age.”).

³¹⁰ Specifically, the FCC relied on its Title I “ancillary” jurisdiction. *Id.* at 14987 (“The Commission, however, ‘has jurisdiction to impose additional regulatory obligations under its Title I ancillary jurisdiction to regulate interstate and foreign communications.’” (quoting *Brand X Internet Servs.*, 545 U.S. at 976)); see Rob Frieden, *Lock Down on the Third Screen: How Wireless Carriers Evade Regulation of Their Video Services*, 24 BERKELEY TECH. L.J. 819, 839 (2009) (noting four freedoms articulated by FCC).

³¹¹ See Comcast Network Management Practices, 23 FCC Rcd. 13028, 13030-33 (2008) (opinion and order) [hereinafter 2008 Comcast Order] (“Comcast . . . misleadingly disclaimed any responsibility for the customers’ [throttling].”).

³¹² See *id.* (“Following these tests, Comcast changed its account and admitted that it targets peer-to-peer traffic for interference.”).

³¹³ *Id.* at 13034-35 (“[T]he subject matter at issue here clearly falls within the Commission’s general jurisdictional grant under Title I.”).

³¹⁴ See *Comcast Corp. v. FCC*, 600 F.3d 642, 644 (D.C. Cir. 2010) (holding that FCC does not have “ancillary authority over Comcast’s network management practices” because the FCC failed to show that its action was “reasonably ancillary . . . to the effective performance of its statutorily mandated responsibilities”).

³¹⁵ See 2008 Comcast Order, *supra* note 311, at 13032-33.

³¹⁶ See *id.* at 13033 (scheduling public hearings on complaints and petitions at both Harvard Law School and Stanford Law School).

norms lived on even without the formal classifications. In this respect, the *2015 Title II Order* codified long-existing market expectations.

The FCC’s oversight grew more formally during the Obama Administration. In 2010, in the wake of the Comcast controversy, the FCC formally adopted network neutrality regulations.³¹⁷ In one sense, these were the first actual network neutrality regulations in history. In another sense, they simply codified norms that had been in place since the *Computer Inquiries*. The rules required transparency, prevented blocking, and prohibited “unreasonable discrimination” (though wireless providers were not subject to this latter requirement).³¹⁸ While the *2010 Order* did not reclassify broadband access, it imposed extensive oversight over access services. The *2017 Repeal Order*, however, curiously portrays this order as evidence of the traditional light-touch approach that specifically “rejected Title II-based heavy-handed regulation.”³¹⁹ Rhetorically, that portrayal achieves two important results: it makes the *2015 Title II Order* seem like a radical break, while portraying the *2017 Repeal Order* as a conservative restoration of the status quo.

To be clear, my normative view is that the post-2002 regimes did not adequately protect Internet openness. The regulatory efforts also had gaps of time in which they did not exist because federal courts continued striking them down.³²⁰ And of course, it is true that broadband access was not formally classified as a telecommunications service during this period.³²¹ The larger point, however, is that both regulatory oversight and pre-existing norms continued to discipline the behavior of access providers. The *2017 Repeal Order* is therefore not a restoration of the previous status quo, but rather an entirely new regime that abandons virtually all oversight. That, I argue, is the radical break with history.

IV. POLICY IMPLICATIONS

Thus far, this Article has argued that the light-touch narrative is based on a misunderstanding of the Internet and its regulatory history. As a result, the current deregulatory regime—beginning with the *2002 Cable Modem Order*—is premised on problematic assumptions. This Part, by contrast, explores the

³¹⁷ 2010 Open Internet Order, *supra* note 53, at 17906 (adopting rules “grounded in broadly accepted Internet norms” to “preserve the Internet as an open platform”).

³¹⁸ *Id.*

³¹⁹ 2017 Repeal Order, *supra* note 3, at 316 (“[T]he Commission adopted the 2010 *Open Internet Order*, where once again the Commission specifically rejected Title II-based heavy-handed regulation of broadband Internet access.”); Internet Freedom Notice, *supra* note 1, at 4440 (“[T]he Commission adopted the 2010 *Open Internet Order*, where once again the Commission specifically rejected more heavy-handed regulation of broadband Internet access service.”).

³²⁰ *See, e.g., Comcast Corp. v. FCC*, 600 F.3d 642, 644 (D.C. Cir. 2010).

³²¹ *See* 2002 Cable Modem Order, *supra* note 30, at 4802 (deregulating cable high-speed broadband access).

policy implications of this analysis, focusing in particular on the recent network neutrality repeal.

Most broadly, the history described undermines the normative force of the light-touch narrative in the manner it is used today. The narrative omits the important role that government regulation played in facilitating the rise of both the Internet and the earlier ancestral data networks from which it evolved.³²² This correction is useful given the widespread view for many years that the Internet thrived because the government had simply left it alone.³²³ The truth is more complicated. The Internet and its ancestors relied on a combination of both regulatory and deregulatory approaches.³²⁴ Indeed, as earlier literature has noted, *Computer Inquiries* is important not solely because of its hands-off approach toward data services, but because it simultaneously combined this approach with extensive oversight of the lower-layer access services.³²⁵ In this way, my historical analysis blurs simplified binary debates between regulation and non-regulation. The reality is that the Internet has always relied on both.

More specifically, this analysis has legal implications for the upcoming challenges to the FCC's network neutrality repeal.³²⁶ In particular, it implies that the FCC lacks statutory authority for its recent decision. To review briefly, the FCC repealed not only the open Internet rules themselves, but also the prior FCC's reclassification of broadband access as a "telecommunications service."³²⁷ It is this latter decision that is the most legally tenuous. For the FCC's decision to be valid, two things must be true: (1) broadband access must

³²² For a more specific discussion of these historical efforts *prior* to *Computer II* in 1980, see generally Blevins, *supra* note 78 (arguing that series of lesser-known FCC proceedings, alongside FCC's rulemakings in response to threat that telephone companies had on nascent data industry in 1960s and 1970s, were important in their contribution to and development of "pre-internet").

³²³ See Preserving the Open Internet, Broadband Industry Practices, *supra* note 48, at 13159 (McDowell, Comm'r, dissenting in part) ("[T]he Internet is perhaps the greatest deregulatory success story of all time."); Comcast 2010 Comments, *supra* note 50, at i (noting FCC's "longstanding, bipartisan, consensus, 'light-touch' policy approach to regulating broadband Internet service").

³²⁴ See *supra* Part II (detailing historical use of regulatory and deregulatory approaches to controlling basic and enhanced services).

³²⁵ See generally Blevins, *supra* note 78 (providing detailed analysis of early *Computer Inquiries* proceedings).

³²⁶ See John D. McKinnon, *States, Activists Challenge FCC Rollback of Net-Neutrality Rules*, WALL STREET J. (Jan. 16, 2018), <https://www.wsj.com/articles/states-activists-challenge-fcc-rollback-of-internet-regulations-1516139984> ("State attorneys general and internet activists filed legal challenges to the Federal Communications Commission's recent rollback of Obama-era internet regulations . . .").

³²⁷ See 2017 Repeal Order, *supra* note 3, at 312 (rejecting government control of Internet and reversing reclassification of broadband Internet access service as telecommunications service).

fall within the statutory definition of “information service,” and (2) it must not fall within the definition of “telecommunications service.”

Neither, however, is true. These provisions, as even the FCC admits, should be read against the background of the history described above.³²⁸ That history, in turn, illustrates why the statute’s text unambiguously prohibits the FCC’s classification decision. Accordingly, there is no need to proceed to “Step Two” of the *Chevron* analysis and defer to the agency’s interpretation.³²⁹

To begin, the statutory definition of “information services” unambiguously excludes treating the *entire* service offering as an information service.³³⁰ The FCC, however, offered two primary justifications for its decision to do so. First, it relied on the word “capability,” arguing that broadband access offers the “capability for generating, acquiring, storing, transforming, [and] processing . . . available information via telecommunications.”³³¹

“Capability,” however, simply does not have this meaning. Policymakers had traditional enhanced services in mind when they drafted this definition.³³² Interpreting the text against the regulatory history informing its meaning, “capability” refers to the various services that users were trying to reach via their local access networks. It did not encompass the local facilities themselves. The FCC’s argument effectively equates broadband access with the higher-layer services and destinations people are actually trying to reach—and does so by invoking the *Stevens Report* and the older world of dial-up ISPs.³³³ Under this same logic, the entire public telephone network would have transformed into an information service in 1996 for purposes of dial-up Internet access.³³⁴ Further, the FCC’s interpretation is even less plausible today given that these services are provided almost entirely by third parties.³³⁵

³²⁸ See *id.* at 321 (“A body of precedent from the courts and the Commission served as the backdrop for the 1996 Act and informed the Commission’s original interpretation and implementation of the statutory definitions of ‘telecommunications,’ ‘telecommunications service,’ and ‘information service.’”).

³²⁹ See *U.S. Telecom Ass’n v. FCC*, 825 F.3d 674, 692 (D.C. Cir. 2016) (illustrating past applications of *Chevron* doctrine to broadband classifications).

³³⁰ 47 U.S.C. § 153(24) (2012) (defining “information services”).

³³¹ *Id.*; 2017 Repeal Order, *supra* note 3, at 322-25 (arguing that broadband access falls within scope of definition of “information system” because of its capabilities).

³³² See *supra* Part II (arguing that when drafting statutory definition of “information systems,” policymakers intended various capabilities described in definition to align with those provided by enhanced services).

³³³ See 2017 Repeal Order, *supra* note 3, at 324 (“[S]ubscribers can retrieve files from the World Wide Web, and browse their contents, *because* their service provider offers the ‘capability for . . . acquiring, . . . retrieving [and] utilizing . . . information.’”).

³³⁴ See 2018 Mozilla Brief, *supra* note 18, at 31-32 (arguing that “plain old phones” and “computer processing chip[s]” could be “information services” under this logic).

³³⁵ See Internet Engineers Comments, *supra* note 99, at 13.

Perhaps recognizing these weaknesses, the FCC alternatively claims that broadband access is “inextricably intertwined” with other information services, thus making the entire offering one integrated information service.³³⁶ In short, the FCC relies heavily on contamination theory. In doing so, the FCC explicitly equates modern broadband access with older ISPs. It explains, “[o]ur findings today are consistent with classification precedent prior to the *Title II Order*, which consistently found that ISPs offer a single, integrated service.”³³⁷ It also echoed earlier arguments that all information services necessarily include some telecommunications because they are offered “via telecommunications.”³³⁸ It notes that “broadband Internet access service has always had a telecommunications component intrinsically intertwined with” information services.³³⁹

History illustrates the problems with these arguments. Contamination theory emerged in the specific and distinct context of resale and enhanced service providers that did not own local facilities, but instead purchased them from local carriers. The rationale was to prevent these services from being regulated as common carriers *even though their services included a transmission component*. It was a legal hack designed to apply regulation only to the non-competitive aspects of the network. The concept, however, never extended to the entire service offering—there was always the background assumption of an underlying carrier providing nondiscriminatory access to local users. To be precise, the statutory term “via telecommunications” always assumed the existence of underlying “telecommunications services” somewhere, and thus it never extended deregulation all the way down the line. The *2002 Cable Modem Order*, to be blunt, just mixed it up—and so did the Supreme Court.

The idea that broadband access contains a legally distinct telecommunications service is also not a radical innovation as it was recognized repeatedly by contemporary parties prior to the *2002 Cable Modem Order*. The FCC’s *Frame Relay Order* rejected the application of contamination theory to a new packet-switching system because the service retained a distinct identity.³⁴⁰ The earliest federal courts to address the question also found a legally separate transmission service (as did three Supreme Court Justices).³⁴¹ Parties commenting in the

³³⁶ See 2017 Repeal Order, *supra* note 3, at 325, 335-48.

³³⁷ *Id.* at 339-40.

³³⁸ *Id.* at 341-42 (“By definition, *all* information services accomplish their functions ‘via telecommunications,’ and as such, broadband Internet access service has always had a telecommunications component intrinsically intertwined with the . . . capabilities an information service offers.”).

³³⁹ *Id.*

³⁴⁰ Frame Relay Order, *supra* note 154, at 13722-23 (“AT&T must unbundle its basic frame relay service, regardless of whether . . . the offering also provides combined, enhanced . . . service . . .”).

³⁴¹ See *Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 1007 (2005) (analogizing transmission services to delivery of pizza in that delivery is separate and

FCC’s cable modem proceeding recognized the difference between Internet services and the transmission of Internet services.³⁴² It was the *2002 Cable Modem Order* that took the wrong turn. There is therefore strong authority and precedent for the conclusion that broadband access includes a legally distinct service offering. And from there, it is relatively easy to establish that it meets the other requirements of a “telecommunications service”—specifically, that it is offered “for a fee . . . to the public.”³⁴³

The Internet’s regulatory history also illustrates problems with the FCC’s more specific arguments in the *2017 Repeal Order* that domain name service (“DNS”) and caching service establish an intertwined information service.³⁴⁴ The most basic response is that both services can be provided by independent third parties.³⁴⁵ In this sense, they are no different than email services, in that a user can obtain email from her access provider or from a third party like Google, and therefore, such a service is functionally separate from the basic transmission service. DNS and caching are similarly distinct. These independent services are not what the FCC had in mind when it first developed contamination theory.

Alternatively, these services can also be viewed as part of—or adjunct to—the transmission path itself.³⁴⁶ Given the *2017 Repeal Order*’s reliance on DNS, it is important to understand these arguments.³⁴⁷ DNS refers to the domain name translation service.³⁴⁸ It is like a traditional phone book in that it helps locate addresses on the network. Computer networks use IP addresses, not words, to

distinct service from simply ordering one); *Brand X Internet Servs. v. FCC*, 345 F.3d 1120, 1132 (9th Cir. 2003); *AT&T Corp. v. City of Portland*, 216 F.3d 871, 877-79 (9th Cir. 2000) (“Under the statute, Internet access for most users consists of two separate services.”).

³⁴² See *supra* notes 243-46 and accompanying text (arguing that cable broadband did include separate, distinct internet transmission services).

³⁴³ 47 U.S.C. § 153(53) (2012); see *U.S. Telecom Ass’n v. FCC*, 825 F.3d 674, 711 (D.C. Cir. 2016).

³⁴⁴ See *2017 Repeal Order*, *supra* note 3, at 325-34 (finding that “DNS is an indispensable functionality of broadband Internet access service”).

³⁴⁵ See *Internet Engineers Comments*, *supra* note 99, at 19-21 (arguing that third parties can provide myriad of services and capabilities and that “ISPs merely provide the transport between the end user and the capability that they are attempting to access”); *2015 Title II Order*, *supra* note 2, at 5773-74 (“The growth of the Internet of Things is yet another clear indication that devices and services that consumers use with today’s Internet are not inextricably intertwined with the underlying transmission component.”).

³⁴⁶ See *U.S. Telecom Ass’n*, 825 F.3d at 705 (upholding as reasonable FCC’s conclusion that DNS and caching are adjunct services); *Internet Engineers Comments*, *supra* note 99, at 5765-70 (arguing that FCC has “consistently held the view that ‘adjunct-to-basic’ functions fall within the telecommunications systems management exception to the ‘information service’ definition”).

³⁴⁷ See *2017 Repeal Order*, *supra* note 3, at 325-31 (concluding that DNS and caching functionalities are integrated with broadband Internet access).

³⁴⁸ For an overview of this system, see William Larsen, *A Stern Look at the Property Status of Top-Level Domains*, 82 U. CHI. L. REV. 1457, 1459-62 (2015) (reviewing technical aspects of DNS as well as its historical development).

route packets to the proper destination. For instance, when you type “google.com,” your access provider includes a DNS service that checks the “phone book” for the proper IP address for that domain, and then translates it accordingly.³⁴⁹ In this respect, the DNS service simply facilitates physical transmission. As computer engineers have explained, even though DNS is implemented on a higher layer of the network stack, its purpose is to benefit the network layer functions (i.e., the transmission on the roads).³⁵⁰

One counter-argument is that DNS changes the data that users provide, and therefore should be considered an information service.³⁵¹ By definition, “telecommunications” does not change the information that a user submits. Instead, it merely transmits it “without change in the form or content.”³⁵² One argument, accordingly, is that DNS cannot possibly be a telecommunications service because it necessarily translates the user’s request into something different.

This argument, however, falls short in several respects. First, DNS does not change the user’s data in any sense contemplated by the statute because DNS simply facilitates moving the data to its desired location where it will then be acted upon in the way the statute contemplates (e.g., processing and storage).³⁵³ Second, the frame relay service was a new, faster packet-switching service, and as part of the service, there were some incidental changes such as altering the packet header or dropping frames that had been sent.³⁵⁴ AT&T cited these changes to argue that the service was “enhanced” rather than “basic” (these are the earlier versions of the 1996 Act definitions).³⁵⁵

³⁴⁹ See Jesse S. Bennett, *Caching in on the Google Books Library Project: A Novel Approach to the Fair Use Defense and the Dmca Caching Safe Harbors*, 35 FLA. ST. U. L. REV. 1003, 1016-18 (2008) (“The Domain Name System (DNS) is responsible for translating alphanumeric domain names (URLs) into Internet Protocol (IP) addresses.”); Jon M. Peha, *The Network Neutrality Battles That Will Follow Reclassification*, 12 I/S: J.L. & POL’Y FOR INFO. SOC’Y 11, 17 (2015) (stating that DNS allows users to “map human-readable names such as ‘www.fcc.gov’ into IP addresses”).

³⁵⁰ See Internet Engineers Comments, *supra* note 99, at 9 (“From the standpoint of looking at where the benefits of DNS are realized, it would be more reasonable to consider them in line with the layer they affect rather than the layer they are implemented in . . .”).

³⁵¹ See Andrew McBride, *A Decisive Battle for Net Neutrality Looms Ahead*, LAW360 n.8 (Dec. 7, 2017, 11:29 AM), <https://www.law360.com/articles/992357/a-decisive-battle-for-net-neutrality-looms-ahead> [<http://perma.cc/L4WV-DWWF>] (noting FCC’s earlier reliance on this argument).

³⁵² 47 U.S.C. § 153(50) (2012).

³⁵³ See Frame Relay Order, *supra* note 154, at 13721 (stating that although frame discard services “facilitate the economical, reliable movement of information,” this “does not alter the nature of the basic service”).

³⁵⁴ *Id.* (“[T]he discard feature of the frame relay networks allows the network to deliver unaltered customer data at rates exceeding minimum, contracted-for transmission rates.”).

³⁵⁵ *Id.* at 13718, 13722-23 (“AT&T and BTNA argue that because protocol conversion is an integral part of AT&T’s frame relay service offering, [the] service should be classified as

The FCC was clear, however, that these changes were designed to facilitate transmission in their rejection of AT&T’s argument as a “misreading of the Rule.”³⁵⁶ It explained, “[t]he functionality that AT&T relies on to argue that the data are ‘different’ is designed to facilitate the overall transparency and efficiency of the frame relay service.”³⁵⁷ DNS is exactly the same—its purpose is to facilitate more efficient transmission.

In sum, broadband access does not fall within the statutory meaning of an information service—either on its own or as an intertwined service. The implication, accordingly, is that (1) the FCC’s classification cannot withstand scrutiny and (2) both the FCC and the Supreme Court got these issues wrong in the early 2000s.

The strongest challenge to this aspect of the *2017 Repeal Order* is therefore statutory—the text simply does not support the current interpretations. Another potential challenge, however, is that the FCC’s policy decision is arbitrary and capricious under the Administrative Procedure Act (“APA”).³⁵⁸ This doctrine requires policymaking be the product of rational decision-making supported by evidence in the record.³⁵⁹

In light of the history described, there are several aspects of the FCC’s classification that are either unsupported or simply irrational. (Note that my analysis focuses only on the classification decision). First, it is difficult to imagine any conclusion based on contamination theory would have sufficient evidentiary support. As this Article has documented at length, broadband access is a different animal than Internet services more broadly. This is true on a number of technological and economic levels including network layer functionality, entry costs, competitiveness, and many other characteristics. Even assuming services like DNS and caching should be understood as information services, the fact that third parties can provide them illustrates how non-intertwined these services are with broadband access more generally.

In addition, it is arguably irrational to rely on precedent that had the older model of the Internet in mind. The *2017 Repeal Order*, for instance, relies upon precedent such as the *Stevens Reports*, §§ 230 and 231, and pre-1996 Act sources that had enhanced services in mind.³⁶⁰ These sources, however, contemplated traditional enhanced and information services, and thus, they operated against

an enhanced service.”).

³⁵⁶ *Id.* at 13721.

³⁵⁷ *Id.*

³⁵⁸ *See* 5 U.S.C. § 706(2)(A) (2012) (holding arbitrary and capricious agency actions unlawful).

³⁵⁹ *See, e.g.,* *Minotti v. Whitehead*, 584 F. Supp. 2d 750, 764 (D. Md. 2008) (defining standard).

³⁶⁰ *See supra* Part II (examining origins of light-tough regulation and how policies initially developed were always in regard to services being accessed via telephone network (i.e., enhanced services)).

the background assumption of an underlying regulated network that provided local access.³⁶¹

To conclude, this analysis does not necessarily mean that the FCC lacks all authority to repeal network neutrality rules. Even though I would disagree as a normative matter, there are avenues that remain open to the FCC that are more legally sound. First, the FCC could repeal or alter the rules without necessarily changing the classification (I argue the latter is more clearly illegal). The 1996 Act gives the FCC specific authority to “forbear” from regulations that it finds unnecessary or harmful.³⁶² To be sure, the FCC must still establish certain showings before it can forbear, but those have not been terribly difficult to meet historically.³⁶³ The classification of broadband access as a “telecommunications” service, however, would have to remain in place. In addition, the FCC could come up with other and better legal support for its decision to repeal. Relying on precedent that contemplated entirely different technologies is, I would argue, arbitrary and capricious. The larger point, though, is that the agency has to do something different to survive legal scrutiny.

CONCLUSION

In communications policy, history matters. Indeed, the legality of the network neutrality repeal is in many respects a debate about the meaning of history. This Article attempts to clarify this history and apply it to modern policy debates. The ultimate implication is that history is being used in a misleading way to justify deregulatory policy by equating the traditional data and Internet services with modern broadband access services.

In conclusion, it is worth noting that this statutory scheme is not some outdated relic of the past—in some ways, it is more relevant than ever. The long history of isolating and regulating transmission has inherent policy wisdom. These networks are the lifeblood of modern democratic society. They are the foundation of our economic and social activities. It is thus more important than ever to prevent unreasonable discrimination and to exercise democratic oversight. The rhetoric of deregulation and innovation that traditionally surrounds Internet technologies should not blur the importance of the foundational regulation that made it all possible. The idea of common carriage may sound quaint and boring, but it reflects some of our strongest and most cherished democratic values. Before abandoning it, we should at least have a clear understanding of its history.

³⁶¹ See *supra* note 284 and accompanying text.

³⁶² 47 U.S.C. § 160(a).

³⁶³ *Id.* (outlining requirements necessary to show for forbearance).