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CALIFORNIA, ARE YOU THERE? IT'S THE ENTERTAINMENT INDUSTRY CALLING AND WE NEED NET NEUTRALITY

*Olivia Young**

With online streaming rapidly replacing cable as the preferred method of media consumption for viewers, demand for online content is at an all-time high. Behind the scenes of the entertainment evolution is an open and neutral Internet that facilitates equal access to all online content. Until recently, the Federal Communications Commission (FCC) committed to preserving the neutral net by passing Net Neutrality regulations that prohibited Internet Service Providers (ISPs) from blocking, throttling, or prioritizing online content. That changed on December 14, 2017, when the FCC repealed Net Neutrality, lifting the restrictions that once prevented ISPs from differentially transmitting online content. ISPs are now free to create a hierarchy of content prioritization that favors the content they own and the content hosted by streaming services capable of paying the greatest prioritization fees. This hierarchy has the potential to reduce innovation in the online streaming service industry by creating financial barriers to entry that keep smaller streaming services out, limiting the diversity of content accessible by consumers.

This Note first describes the history of the Internet's regulation that preceded Net Neutrality's repeal, then explains the repeal's potential consequences on online streaming services and consumers. Next, this Note offers solutions to Net Neutrality's repeal. Finally, this Note concludes with a call to action, encouraging those who care about the future of a neutral Internet to not stand idle.

* J.D. Candidate, 2020, Loyola Law School, Los Angeles. The author would like to begin by thanking her parents for supplying endless love, support, and cups of tea throughout the writing of this piece. The author would also like to thank her advisor, Professor Karl Manheim, for his feedback, guidance, and encouragement, as well as the *Loyola of Los Angeles Entertainment Law Review* editorial board for making the publication of this piece possible. Finally, the author would like to thank her friend, Elise Creighton, for not only serving as an incredible source of friendship over the past thirteen years, but for introducing her to the importance of Net Neutrality and emboldening her to do something about its repeal.

I. INTRODUCTION

On October 29, 1969, UCLA Professor Leonard Kleinrock, assisted by programmer Charley Kline, sent the first “host-to-host” message over the Advanced Research Projects Agency Network (ARPANet) ever recorded.¹ The ARPANet, a precursor to the Internet whose simple network included only a handful of universities, carried the message from UCLA to Stanford Research Institute.² The first message read, “lo.”³ About an hour later, the second message read “login.”⁴ Fast-forward fifty years to 2019, the ARPANet has been replaced by the Internet, hosts 3.7 billion users, and boasts an estimated 6.35 billion indexed web pages.⁵ Google alone processes more than 40,000 transmissions per second.⁶ The modern Internet has evolved from its humble beginnings as a small series of interconnected computers, to a massive global network comprised of hundreds of thousands of networks across the world.⁷

The Internet has become “a catalyst of innovation,” not only creating its own industry but also igniting change and expansion in others.⁸ One industry which has experienced particular growth and change as a result has

1. Leonard Kleinrock, *History of Communications*, IEEE COMM. MAG., Aug. 2010, at 26, 32.

2. *Id.* at 26, 32.

3. *Id.* at 32.

4. *45 Years Ago: First Message Sent over the Internet*, CBS NEWS (Oct. 29, 2014, 12:55 PM), <https://www.cbsnews.com/news/first-message-sent-over-the-internet-45-years-ago/> [<https://perma.cc/AU6G-2XSL>].

5. Bernard Marr, *How Much Data Do We Create Every day? The Mind-Blowing Stats Everyone Should Read*, FORBES (May 21, 2018, 12:42 AM), <https://www.forbes.com/sites/bernard-marr/2018/05/21/how-much-data-do-we-create-every-day-the-mind-blowing-stats-everyone-should-read/#3268714760ba> [<https://perma.cc/4R45-V2YD>]; *The Size of the World Wide Web (The Internet)*, WORLDWIDEWEBSITE.COM, <https://www.worldwidewebsite.com> [<https://perma.cc/A8Q9-2BUJ>].

6. Marr, *supra* note 5.

7. Raphael Cohen-Almagor, *Internet History*, INT’L J. OF TECHNOETHICS, Apr.–June 2011, at 45, 57–58.

8. Lynn St. Amour, *The Internet: An Unprecedented and Unapparelled Platform for Innovation and Change*, 157 (Soumitra Dutta ed., 2012); Derek Slater & Patricia Wruuk, *We Are All*

been the entertainment industry.⁹ With the introduction of online video streaming, modern consumers are abandoning traditional methods of film and television consumption for an online experience they can customize to match their taste, viewing schedule, and bank account.¹⁰ Popularly labeled “cord cutters,” these modern consumers are swapping out their cable and satellite contracts for accounts with subscription-based online streaming providers such as Netflix or Hulu.¹¹ Much like cable began to replace free broadcast as the preferred method of television consumption starting in the 1950s, online streaming services are now taking over as viewers choose to log in instead of tune in.¹²

The technology necessary to facilitate this change in media consumption was first made available in 2007, when Netflix released its streaming service.¹³ However, the dramatic increase in online streaming has been more recent.¹⁴ While this upward trend can be partially explained by increased audience familiarity with online streaming technology and increased access to the Internet, there are other factors that come in to play.¹⁵ One such factor is the perceived relative advantage of streaming content online.¹⁶ The relative advantage of an innovation is “the degree to which [it] is perceived as

Content Creators Now: Measuring Creativity and Innovation in the Digital Economy, 163 (Soumitra Dutta ed., 2012).

9. Derek Slater & Patricia Wruuk, *We Are All Content Creators Now: Measuring Creativity and Innovation in the Digital Economy*, 163 (Soumitra Dutta ed., 2012).

10. See Arne Alsin, *The Future of Media: Disruptions, Revolutions and The Quest for Distribution*, FORBES (July 19, 2018, 5:04 PM), <https://www.forbes.com/sites/aalsin/2018/07/19/the-future-of-media-disruptions-revolutions-and-the-quest-for-distribution/#14043fab60b9> [https://perma.cc/66JE-T548].

11. Alec Tefertiller, *Media Substitution in Cable Cord-Cutting: The Adoption of Web-Streaming Television*, 62 J. OF BROADCASTING & ELECTRONIC MEDIA 390, 390 (2018).

12. *History of Cable*, CAL. CABLE & TELECOMM. ASS’N, <https://www.calcable.org/learn/history-of-cable/> [https://perma.cc/W2LA-A4UA].

13. Tefertiller, *supra* note 11, at 402.

14. *Id.*

15. *Id.* at 402–03.

16. *Id.* at 401–03.

better than the idea it supersedes.”¹⁷ In a study into the cord-cutting phenomenon published in 2018, researchers found that consumers perceive online video streaming as more advantageous than traditional methods of viewing television, preferring a television viewing experience that “mirror[s]” their general user experience online.¹⁸ Thus, viewers want to play an active role in choosing and streaming the content they watch, and want the opportunity to stay online to connect with friends while doing so.¹⁹

The entertainment industry’s evolution is attributable to an unrestricted Internet that facilitates competition, innovation, and growth.²⁰ Often described as an “open architecture,” the Internet allows users to freely communicate with each other globally.²¹ This freedom “has opened markets beyond the traditional geographic limitations,” and allowed start-ups like Spotify and YouTube to enter their respective markets and scale globally.²² Unfortunately, this “open Internet” may soon become a relic of the past.²³

In 2017, the Federal Communications Commission (FCC)²⁴ voted to pass the Restoring Internet Freedom Order (RIFO).²⁵ RIFO eliminated the restrictions on Internet Service Providers (ISPs) that the FCC put in place in

17. EVERETT M. ROGERS, *DIFFUSION OF INNOVATIONS* 15 (4th ed. 1995) (explaining that this factor, when measured in the general public, may be used to predict the rate at which an innovation will be adopted).

18. Tefertiller, *supra* note 11, at 396, 398–400, 403.

19. *Id.* at 403.

20. Florian Schaub, *The Implications of the FCC’s Net Neutrality Repeal*, 6 *COGITATIO PRESS* 69, 69 (2018).

21. Michael K. Powell, Chairman, FCC, Remarks at the Silicon Flatirons Symposium: The Digital Broadband Migration: Toward a Regulatory Regime for the Internet Age, at 3 (Feb. 8, 2004).

22. *Id.*

23. Schaub, *supra* note 20, at 71.

24. *About the FCC*, <https://www.fcc.gov/about/overview> [<https://perma.cc/NN6Y-T68M>] (describing the FCC as “[a]n independent U.S. government agency overseen by Congress, the Commission is the federal agency responsible for implementing and enforcing America’s communications law and regulations.”).

25. Restoring Internet Freedom, 33 *F.C.C. Rcd.* 311, 311, 531 (2018).

2015 and reclassified the Internet under Title I.²⁶ The restrictions prohibited ISPs from “blocking, throttling, and [engaging in] prepaid-prioritization,” and worked to preserve the Internet as an open and non-discriminatory resource accessible by all; a concept captured by the term “net neutrality” coined by Columbia law professor, Tim Wu.²⁷ Blocking, throttling, and paid prioritization are all ways in which an ISP may restrict consumer access to content online. If an ISP blocks content, for example, a consumer generally is unable to access it.²⁸ If, instead, an ISP throttles a website, the website will still be accessible by consumers but will take much longer to load.²⁹ ISPs may use throttling to profit through paid prioritization agreements.³⁰ A content provider who enters into a paid prioritization agreement with an ISP agrees to pay the ISP a fee to increase the speed at which consumers are able to access the content provider’s website.³¹ The FCC’s restrictions on these behaviors, which were adopted to preserve the Internet’s open architecture and encourage innovation, have officially been removed.³²

By eliminating these restrictions and thereby repealing net neutrality, the FCC has placed the future of the Internet into the hands of ISPs.³³ With ISPs possessing concentrated power over the Internet’s distribution, control over consumers’ ability to access content online falls into the hands of a few

26. *Id.* at 318, 466–67, 495.

27. Protecting & Promoting the Open Internet, 30 F.C.C. Rcd. 5601, 5627, 5647 (2015); Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. ON TELECOMM. & HIGH TECH. L. 141, 145 (2003).

28. Daphne Keller, *A Glossary of Internet Content Blocking Tools*, CENTER FOR INTERNET AND SOCY, (Jan. 29, 2018, 5:00 AM), <http://cyberlaw.stanford.edu/blog/2018/01/glossary-internet-content-blocking-tools> [<https://perma.cc/C3FP-DEW6>].

29. Tim Fisher, *What Is Bandwidth?*, LIFEWIRE (Sept. 26, 2019), <https://www.lifewire.com/what-is-bandwidth-2625809> [<https://perma.cc/2V67-FJSW>].

30. Katherine Trendacosta, *Busting Two Myths About Pair Prioritization*, ELECTRONIC FRONTIER FOUND. (Apr. 16, 2018), <https://www.eff.org/deeplinks/2018/04/busting-two-myths-about-paid-prioritization> [<https://perma.cc/KM7S-8UJQ>].

31. *Id.*

32. *Protecting & Promoting the Open Internet*, 30 F.C.C. Rcd. at 5618–34; *Restoring Internet Freedom*, 33 F.C.C. Rcd. 311, 411 (2018) (describing how the Internet’s reclassification under Title I removed the FCC’s “statutory authority to impose market-wide prophylactic regulation[s]” on to ISPs).

33. Schaub, *supra* note 20, at 70.

major corporations.³⁴ What Net Neutrality's repeal will mean for the entertainment industry is unknown at this time.³⁵ While proponents of RIFO argue that the Internet's deregulation will encourage investment into broadband services, thus creating jobs and encouraging innovation,³⁶ this outlook seems overly optimistic.

As the number of consumers online continues to increase, upgrades to the Internet's infrastructure are inevitable.³⁷ Growing interest in nationwide Internet services require ISPs to expand their infrastructure into rural areas.³⁸ Those in favor of Net Neutrality's abolishment argue that ISPs will lack an incentive to engage in such expansion if unable to charge websites prioritization fees.³⁹ However, this argument fails to consider that ISPs lack the financial incentive to service rural areas in the first place.⁴⁰ As of 2016, ap-

34. There are three tiers into which ISPs are divided. Tier three houses companies like Comcast that provide Internet services directly to consumers and businesses, referred to as end-users, in exchange for a fee. Tier two houses ISPs which are "specialized in data transmission, such as routers." Tier one (also referred to as level one) is comprised of the ISPs which, through their creation of the Internet's physical infrastructure, form the "backbone" of the Internet on which all other ISPs rely. MARK WINTHER, TIER 1 ISPs: WHAT THEY ARE AND WHY THEY ARE IMPORTANT 1, 4-5 (2006). Given the prohibitively high cost of installing this infrastructure, there are financial barriers to entry which limit the number of providers offering these services. Margil A. Vanberg, *Internet Regulation: Monopolist Bottlenecks in Internet Service Markets?*, 1, 2, 19, 21-22 (June 2003).

35. Francis Dinha, *Reflecting on One Year Without Net Neutrality*, FORBES (June 25, 2019), <https://www.forbes.com/sites/forbestechcouncil/2019/06/25/reflecting-on-one-year-without-net-neutrality/#46f015374edc> [<https://perma.cc/86JB-F3BK>].

36. Restoring Internet Freedom, 33 F.C.C. Rcd. 311, 529, 530 (2018) (Chairman Ajit Pai describing how the Internet's classification and regulation under Title II has "impeded innovation" and reduced investment into the expansion of Internet services which, in turn, resulted in fewer jobs); see also Schaub, *supra* note 20, at 70.

37. Hsing Kenneth Cheng et al., *The Debate on Net Neutrality: A Policy Perspective*, 22 INFO. SYSTEMS RES. 1, 4 (2011).

38. See *id.* at 2, 4.

39. *Id.*

40. See Marguerite Reardon, *Why Rural Areas Can't Catch a Break on Speedy Broadband*, CNET (Oct. 23, 2018), <https://www.cnet.com/news/why-rural-areas-cant-catch-a-break-on-speedy-broadband/> [<https://perma.cc/8S6W-YV5X>].

proximately thirty-nine percent of individuals living in rural areas lacked internet access.⁴¹ Creating the infrastructure necessary to service individuals living in rural areas is prohibitively expensive, and once it is created, the number of consumers who will pay to access it could be relatively few.⁴² In essence, hoping that ISPs will choose to invest some of the revenue they generate through prioritization agreements into the expansion of Internet services to rural areas, when they lack a financial incentive to do so, appears misguided.⁴³

ISPs possess a financial incentive to use their newfound abilities to discriminate against, prioritize, and prohibit access to content at the cost of innovation.⁴⁴ RIFO does not prevent ISPs from creating hierarchies of content prioritization based on the amount that each streaming service is able to pay, while creating separate payment hierarchies for consumers that will determine their ability to access these sites.⁴⁵ This enables ISPs to “charge twice for the same service: their subscribers for Internet access and content providers for making sure that their data actually reaches the ISP’s subscribers.”⁴⁶

Furthermore, ISPs who offer their own online streaming services have a financial incentive to make it easier for consumers to access content on the platforms they own, directing their customers away from competing services.⁴⁷ Through the acquisition of content providers like NBC Universal and Time Warner, ISPs are beginning to enter the content production business.⁴⁸ By offering their subscribers lower access fees, ISPs will entice consumers to use their streaming service instead of services owned by a competitor.⁴⁹ In addition, ISPs will dissuade financially-strapped start-ups from

41. *Id.*

42. *Id.*

43. *Id.*

44. See Schaub, *supra* note 20, at 70–71.

45. *Id.*

46. *Id.* at 70.

47. *Id.* at 71.

48. *Id.*

49. *Id.* at 70–71.

entering the online streaming market.⁵⁰ This, in turn, will stifle innovation and reduce content diversity, allowing the largest and most financially-equipped companies to maintain the most market control.⁵¹ Ultimately, consumers may find that they no longer play an active role in their media consumption,⁵² with their streaming preferences taking a back seat to the priorities of their ISP.

This Article identifies and analyzes the potential consequences of Net Neutrality's repeal on one of California's most iconic industries: entertainment. Taking into account the current state of Internet regulation, this Note examines and explores the ways in which ISPs' newfound ability to block, throttle, and prioritize content could impact online streaming services and consumers. Specifically, this Article argues that ISPs have the motivation and means to create financial barriers to entry into the online streaming service market using their control over content access.⁵³ These barriers will limit market entry by start-ups, which will stifle innovation and growth in the entertainment industry as a whole, where online streaming has become the preferred method of media consumption.⁵⁴ As stated by former FCC Chairman, Michael K. Powell: "Internet Freedom . . . promotes innovation by giving developers and service providers confidence that they can develop broadband applications that reach consumers and run as designed."⁵⁵ With this freedom now compromised, a solution must be found.

Part II of this Note retraces the evolution of the Internet from the time of its formation to the modern day, and the various regulatory frameworks which have accompanied its growth. Part III will discuss the potential con-

50. *Id.*

51. See Jenny Odegard, *What Net Neutrality Changes Could Mean For Your Small Business*, FORBES (Dec. 4, 2017, 4:06 PM), <https://www.forbes.com/sites/jennyodegard/2017/12/04/what-net-neutrality-changes-could-mean-for-your-small-business/#528ccb1056a1> [https://perma.cc/T34D-7BL3].

52. Tefertiller, *supra* note 11, at 403.

53. See, e.g., Schaub, *supra* note 20, at 70–71 (describing how ISPs have historically, "abus[ed] their powerful position as mediators between content (or edge) providers and consumers," and are likely to continue to do so after Net Neutrality's repeal by entering into expensive prioritization agreements with content providers that smaller providers may have difficulty paying).

54. See *id.* at 70–71.

55. Powell, *supra* note 21, at 6.

sequences of the non-neutral net on the entertainment industry, with a specific focus on how online streaming services could be affected by blocking, throttling, and paid prioritization efforts by ISPs. Part IV explores the efforts of states and private organizations in overturning or otherwise avoiding the implications of Net Neutrality's repeal. This Section offers various alternative solutions that may be available in the absence of protective legislation. Part V concludes this Note with a call to action, encouraging all who care about the future of an open and unrestricted net to no longer stand idle.

II. BACKGROUND

This Section provides a timeline of the Internet's growth and regulation. Beginning with the 1934 Communications Act, this Section will detail the FCC's creation and its jurisdiction over communications services. Following an introduction to the ARPANet, and its first successful transmission in 1969, this Section examines the FCC orders, congressional acts, and court cases which have contributed the Internet's expansion.

A. Creation of the FCC and Initial Classifications of Computer Services

The FCC was created by Congress in the 1934 Communications Act (the "1934 Act").⁵⁶ The 1934 Act placed "communication by wire," which at this time included telephone and telegraph services, under the FCC's purview.⁵⁷ The 1934 Act represented two significant changes in the way communication by wire had previously been regulated. First, by transferring authority over the telephone and telegraph industries to the FCC, the 1934 Act took away the regulatory control over these industries that states had enjoyed

56. 47 U.S.C. § 151 (2019).

57. Roger Heinrich, *Federal Radio Commission*, MIDDLE TENN. ST. U., <https://www.mtsu.edu/first-amendment/article/809/federal-radio-commission> [https://perma.cc/A36D-GL8J].

prior to 1934.⁵⁸ Second, by classifying radio communication and communication by wire under separate titles, the 1934 Act seemingly created a distinction between these two communication services.⁵⁹

The 1934 Act is divided into multiple titles.⁶⁰ The first, Title I, grants the FCC general jurisdiction to regulate certain communications industries.⁶¹ Title I also gives the FCC ancillary jurisdiction to “make available . . . to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service,” and “perform any and all acts, make such rules and regulations, and issue such orders . . . as may be necessary in the execution of its functions.”⁶² Title I ancillary jurisdiction allows the FCC to “promulgate regulations to effectuate the goals and provisions of the Act even in the absence of an explicit grant of regulatory authority, if the regulations are reasonably ancillary to the Commission’s specific statutory powers and responsibilities.”⁶³ Thus, under certain circumstances, the FCC may use its ancillary jurisdiction under Title I to increase its limited regulatory authority over Title I communications services.⁶⁴

Title II of the 1934 Act details the FCC’s power to regulate telecommunications services.⁶⁵ Providers of these services, “common carriers,”⁶⁶ include “any person engaged as a common carrier for hire, in interstate or

58. See DIANE S. KATZ & DR. THEODORE BOLENA, *CROSSED LINES: REGULATORY MISSTEPS IN TELECOM POLICY* at 2 (2003).

59. See generally Communications Act of 1934, 47 U.S.C. §§ 151, 201 (2019) (placing telecommunications regulations under the “Title II—Common Carriers” heading, and placing radio communications regulations under the “Title III—Provisions Related To Radio” heading).

60. *Id.*

61. *Id.* In 1934, the FCC’s jurisdiction extended over the telecommunications and radio communications industries. The FCC’s jurisdiction under the 1934 Act has since expanded to encompass new advancements in communications technologies such as cable television and Internet services.

62. *Id.*; § 154(i).

63. *American Library Ass’n. v. FCC*, 406 F.3d 689, 698 (D.C. Cir. 2005).

64. See *Pub. Serv. Comm’n of Md. v. FCC*, 909 F.2d 1510, 1515 (D.C. Cir. 1990).

65. 47 U.S.C. § 201 (2019).

66. *Id.*

foreign communication by wire or radio or . . . [the] foreign radio transmission of energy,” but not “radio broadcasting.”⁶⁷ Classification of a service provider as a common carrier under Title II gives the FCC “express and expansive authority” to regulate the provider.⁶⁸ When a service provider is classified under Title II, the provider must comply with “such rules and regulations” as the Commission deems necessary to advance the “public interest” in receiving the service.⁶⁹ By definition, the 1934 Act made Title II applicable only to telecommunications carriers, or more specifically, AT&T who possessed widespread market control over the telecommunications industry at the time.⁷⁰ Thus, in providing the FCC with substantial regulatory authority under Title II, Congress ensured that the Commission would be capable of creating regulations that would make sure telecommunications services, like that offered by AT&T, were accessible by all.⁷¹

The 1934 Act serves as an early example of the Federal Government’s push to exercise control over communication technologies. This control would be tested as these technologies continued to expand with new innovations.⁷² Following the first transmission in 1969 over the Internet’s precursor, ARPANet, the FCC was presented with a new form of communications services not previously encountered: those facilitated via computers.⁷³ In response, the FCC produced the Computer Inquiries, a series of decisions beginning in 1970 which sought to classify computer services under Title I and II of the 1934 Act.⁷⁴ In its first decision, Computer Inquiries I, the FCC

67. *Id.* § 153(11).

68. *Mozilla Corp. v. FCC*, 940 F.3d 1, 76 (D.C. Cir. 2019) (citations omitted).

69. *See* 47 U.S.C. § 201.

70. *See* Katz & Bolena, *supra* note 58, at 7–9.

71. *See id.* at 8.

72. *See, e.g.,* Robert Cannon, *The Legacy of the Federal Communications Commission’s Computer Inquiries*, 55 FED. COMM. L.J. 167, 173–74, 181–83 (2003) (describing how technological advancements in computer processing raised questions as to the classification of these advancements under the 1934 Act, ultimately requiring that the FCC define and redefine various aspects of computer processing to fit under either Title I or Title II).

73. *Id.* at 167, 170–73.

74. *Id.* at 173–74.

faced a predicament.⁷⁵ AT&T was utilizing computers to facilitate data processing in connection with the basic communication services they offered at the time.⁷⁶ Here, the new service being offered, data processing, was unregulated but dependent on the heavily regulated provision of telecommunications services.⁷⁷ The FCC took action by creating a distinction between computers, which “facilitated the operation of the communications network and . . . computers with which humans interacted.”⁷⁸ The level of regulation to be applied and the common carrier participation in data processing were both topics at the heart of the FCC’s classification debate.⁷⁹ Ultimately, the FCC found that “[t]he pure data processing market was . . . an innovative, competitive market with low barriers to entry and little chance of monopolization.”⁸⁰ Thus, the Commission determined that the data processing market did not require safeguards to prevent unfair competition.⁸¹ The same could not be said of computers used purely to facilitate communications which the FCC found to be susceptible to monopolistic behavior and necessitating regulation.⁸²

In 1972, the first public demonstration of the ARPANet increased public interest in this new technology.⁸³ Although the ARPANet was originally intended only to facilitate resource-sharing, its messaging capabilities began exploiting the creation of electronic mail (now referred to as e-mail).⁸⁴ This new innovation sparked the interest of thousands of consumers and became

75. *Id.* at 170, 173.

76. *Id.* at 174–75.

77. *Id.* at 180–81.

78. *Id.* at 173.

79. *See id.*

80. *Id.* at 175.

81. *Id.*

82. *See id.*

83. KATIE HAFNER & MATTHEW LYON, WHERE WIZARDS STAY UP LATE (THE ORIGINS OF THE INTERNET) 185–86 (1st ed. 1996).

84. *Id.* at 189.

a driving force behind the ARPANet's expansion.⁸⁵ This growth presented new questions not accounted for by the FCC in Computer Inquiries I.⁸⁶ The delineation between computers that "facilitated the operation of the communications network and . . . computers with which humans interacted," set forth in Computer Inquiries I, was unsustainable.⁸⁷ Each hybrid service created required a case-by-case analysis by the FCC to determine its classification, which became burdensome considering the new developments on the rise.⁸⁸

As a result, in 1976, the FCC returned to the drawing board and in its second decision, Computer Inquiries II, the FCC once again sought to classify computers based on their functions.⁸⁹ This time, the agency drew a line between the "basic" transmission services offered by telecommunications providers, which were subject to greater regulations, and the "enhanced" services offered by computer processing, which would be subject to less regulation.⁹⁰ Basic transmission services move information from one place to another, unaltered.⁹¹ The services, which include computer processing and memory storage, do not interact with "user supplied information."⁹² By contrast, enhanced services, including data processing, are those computer services that take a basic service and use it to alter the information being transmitted.⁹³ Put simply, "what goes into the network is different than what comes out of the network."⁹⁴ In its analysis, the FCC expressed that the public's best interest would be served by allowing data processing services

85. *Id.*

86. Cannon, *supra* note 72, at 181–82.

87. *Id.* at 173.

88. *Id.* at 181.

89. *Id.*

90. *See generally id.* at 183–88.

91. *Id.* at 183–84.

92. *Id.* at 183.

93. *Id.* at 185–86.

94. *Id.* at 186 (citation omitted).

to continue flourishing in the open, competitive market without regulatory interference.⁹⁵

B. *Expansion of the ARPANet*

The FCC's prediction turned out to be valid, with the deregulation of the data processing services encouraging the early Internet's continued expansion.⁹⁶ As the budding Internet continued to grow, changes to its transmission architecture were required to accommodate the increased number of networks hosted.⁹⁷ In the early 1970s, the ARPANet was joined by other networks such as the Atlantic Packet Satellite Network (SATNet).⁹⁸ The Network Control Protocol (NCP), which the ARPANet relied on to transmit information, was designed to only meet the specifications of the ARPANet's network.⁹⁹ It was incompatible with other networks that "had different interfaces, different maximum packet sizes, and different transmission rates."¹⁰⁰ This limited the ARPANet's connectivity across networks.¹⁰¹ Beginning in 1983, the ARPANet migrated from the NCP to the new and improved Transmission Control Protocol (TCP) and Internet Protocol (IP).¹⁰² This protocol migration represents a tremendous milestone in the Internet's

95. Jason Oxman, *The FCC and the Unregulation of the Internet* 9 (FCC, Working Paper No. 31, 1999).

96. *Id.* at 11–12 (describing how the FCC's decision not to regulate data processing services transmitted over telecommunications lines resulted in the early internet's "explosive growth").

97. *Id.*

98. Hafner & Lyon, *supra* note 83, at 221, 222–23.

99. *Id.* at 224.

100. *Id.*

101. *See id.*

102. *Id.* at 248. The Transmission Control Protocol (TCP), which focused only on transmitting information (referred to as packets) from one user to another, was delivered in 1973. The TCP increased network reliability by creating a transmission framework focused on moving packets from one user to another without deciphering the information itself. Five years later, the portion of TCP dedicated to routing packets was separated into its own protocol, the Internet Protocol (IP). Under this new system, TCP would be responsible for, "breaking up messages into datagrams . . . detecting errors, resending anything that got lost," and ensuring the information was in the right order, while IP was "responsible for routing individual diagrams." *Id.* at 226–27, 236.

history.¹⁰³ In their book, *Where Wizards Stay Up Late: The Origins of the Internet*, Katie Hafner and Matthew Lyons describe this event as follows:

Without TCP, communication across networks couldn't happen. If TCP could be perfected, anyone could build a network of any size or form, and as long as that network had a gateway computer that could interpret and route packets, it could communicate with any other network. With TCP on the horizon, it was now obvious that networking had a future well beyond the experimental ARPANet.¹⁰⁴

As the ARPANet continued to expand, so did concerns that this market may fall victim to the stifling effects of concentrated control.¹⁰⁵ In *United States v. American Telephone & Telegraph Company*, the court addressed whether an antitrust consent decree requiring AT&T's divestiture should be entered given the provider's widespread control over the telecommunications industry and its use of this power to disadvantage competitors.¹⁰⁶ Here, the court recognized the FCC's delineation between basic and enhanced services set-forth in Computer Inquiries II.¹⁰⁷ At the heart of this case was the concern that AT&T would use its concentrated power over the distribution of telecommunications services to monopolize the computer and computer-related information markets.¹⁰⁸ Ultimately, the court entered a modified antitrust consent decree, finding the divestiture of AT&T to be in the public interest by promoting competition in the "growing computer, computer-related, and information markets."¹⁰⁹

103. *Id.* at 249.

104. *Id.* at 227.

105. *See, e.g.,* *United States v. American Tel. & Tel. Co.*, 552 F. Supp. 131, 171 (D.D.C. 1982) (describing AT&T's control over the interexchange market which is also known and referred to as the telecommunications market).

106. *Id.* at 135, 223.

107. *Id.* at 138 n.17.

108. *Id.* at 179.

109. *Id.* at 223, 226–27.

By 1984, the Internet hosted 1,024 computers, and academic interest in the ARPANet was on the rise.¹¹⁰ The open architecture of the ARPANet allowed anyone to connect to its network with no “special accommodations” required.¹¹¹ During its initial growth, the ARPANet’s development was funded by the United States government.¹¹² However, as civilian interest grew, so did budgetary constraints, so the government began engaging with private companies to take over.¹¹³ By 1993, the Federal Networking Council, comprised of various government agencies involved in networking, selected the National Science Foundation (NSF) to “assume responsibilities for non-military Internet registration.”¹¹⁴ NSF awarded a five-year contract to Network Solutions, Inc. (NSI) to handle the registration process.¹¹⁵ This registration process involved associating domain names (a human-readable character string such as nsf.gov) with an Internet Protocol (IP) address (used by computers to locate other computers).¹¹⁶ The Domain Name System (DNS) allowed users to “send and receive messages and to access information from computers anywhere on the Internet.”¹¹⁷ By September 1998, over two million registered domain names existed.¹¹⁸ The Internet Corporation for Assigned Numbers and Names (ICANN) entered into an agreement

110. Cohen-Almagor, *supra* note 7, at 51.

111. *Id.* at 51. By 1987, the number of computers hosted by the ARPANet had grown to 10,000 and networks created by various organizations such as the National Science Foundation (NSFNet) began merging to facilitate the traffic. Over the three years which followed, the World Wide Web (WWW), an international system of protocols allowing users to identify resources online using Uniform Resource Locators (URLs), had been developed along with most communications software. *Id.* at 52–53.

112. *Id.* at 46–47.

113. *Id.* at 52.

114. *A Brief History of NSF and the Internet*, NAT’L SCI. FOUND. (Aug. 13, 2003), https://www.nsf.gov/news/news_summ.jsp?cntn_id=103050 [<https://perma.cc/V4D3-LX4H>].

115. *Id.*

116. *Id.*

117. LENNARD G. KRUGER, CONG. RESEARCH SERV., 97-868, INTERNET DOMAIN NAMES: BACKGROUND AND POLICY ISSUES (2015).

118. *See A History of NSF and the Internet*, *supra* note 114.

with the Department of Commerce's National Telecommunications and Information Administration to oversee domain name registration, and the Internet as we know it today, was born.¹¹⁹

C. The 1996 Telecommunications Act and the Reclassification of the Internet

By 1996, it was time for Congress to revisit the Internet's classification.¹²⁰ The 1996 Telecommunications Act (the "1996 Act"), intending to "promote competition and reduce regulation," drew a new line, this time between "information services" (including the Internet), and heavily regulated "telecommunications services."¹²¹ Telecommunications services transmit information from one place to another "without change in the form or content of the information as sent and received."¹²² Information Services, on the other hand, include "the offering of a capability for generating, acquiring storing, transforming, processing, retrieving, utilizing, or making available information"¹²³ Congress found that limited regulatory interference had resulted in the Internet's expansion, to the benefit of all.¹²⁴ During the years which followed the adoption of the 1996 Act, the FCC took a "light-touch" approach to regulating the Internet, veering away from the large scale regulation of ISPs.¹²⁵ The FCC's 1998 Stevens Report endorsed Congress's classification of the Internet as an information service, and the Commissions 2002 Cable Modem Order classified Internet services transmitted via cable systems as "interstate information service[s]."¹²⁶

119. *Id.*

120. *See generally* Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) (codifying Congress's reclassification of the Internet as an information service).

121. *Id.*; 47 U.S.C. §§ 153(24), (53) (2019).

122. 47 U.S.C. § 153(50).

123. *Id.* § 153(24).

124. *Id.* § 230(a)(4).

125. Restoring Internet Freedom, 33 F.C.C. Rcd. 311, 314 (2018).

126. High-Speed Access to Internet over Cable & Other Facilities, 17 F.C.C. Rcd. 4798, 4802 (2002); Fed.-State Joint Bd. on Universal Serv., 13 F.C.C. Rcd. 11501, 11536 (1998); Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs., 545 U.S. 967, 1000 (2005).

While the FCC was prepared to classify Internet services transmitted via cable systems as information services, the Ninth Circuit was not.¹²⁷ In its review of the 2002 Cable Modem Order in *American Telecommunications & Telegraph Corporation v. Portland* (“Portland”), the Ninth Circuit declined to recognize Internet services, when transmitted over “cable broadband facilities,” as information services.¹²⁸ Instead, the court found that because the 1996 Act defined cable broadband transmission as a telecommunications service, Internet services, when transmitted over cable systems, should be classified the same.¹²⁹ This reasoning formed the basis for the Ninth Circuit’s declaratory ruling on the subject two years later where it found that “the Commission could not permissibly construe the 1996 Act to exempt cable companies providing cable modem service from mandatory Title II regulation.”¹³⁰

In its review of the Ninth Circuit’s ruling, the Supreme Court in *National Cable & Telecommunications Association v. Brand X Internet Services* (“Brand X”) disagreed with the Ninth Circuit’s decision in *Portland*.¹³¹ The Court held that the Ninth Circuit “erred in refusing to apply” the correct framework set forth in *Chevron U.S.A., Inc. v. Natural Resources Defense Counsel* (“Chevron”) when analyzing the Commission’s classification.¹³² The *Chevron* framework “requires a federal court to defer to an agency’s construction, even if it differs from what the court believes to be the best interpretation, if the particular statute is within the agency’s jurisdiction to administer, the statute is ambiguous on the point at issue, and the agency’s construction is reasonable.”¹³³ Here, the *Brand X* Court found that because

127. *AT&T Corp. v. City of Portland*, 216 F.3d 871, 880 (9th Cir. 2000) (holding that “the transmission of Internet service to subscribers over cable broadband facilities is a telecommunications service under the Communications Act.”).

128. *Id.* at 878.

129. *See id.* at 877–78.

130. *Brand X*, 545 U.S. at 968.

131. *Id.* at 996.

132. *Id.* at 981–82, 984; *see also* *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842–44 (summarizing the two-part *Chevron* framework utilized by the Supreme Court in this case to address the deference owed to a federal agency where the agency’s construction of a federal statute is at issue).

133. *Brand X*, 545 U.S. at 969 (citation omitted).

the 1996 Act “fails unambiguously to classify non-facilities-based information-service providers that use telecommunications inputs to provide an information service,” the classification of Internet services transmitted over cable systems fell under the FCC’s purview.¹³⁴ Furthermore, given the inseparability of the telecommunication and information-service aspects of cable broadband transmission, the Court found that the FCC’s classification of this communications technology as an information service was reasonable.¹³⁵

In 2004, the then-chairman of the FCC, Michael K. Powell, described four principles essential to maintaining the Internet’s open architecture.¹³⁶ These four principles include the freedom to access content, freedom to use applications, freedom to attach personal devices, and the freedom to obtain service plan information.¹³⁷ Powell emphasized that “ensuring that consumers can obtain and use the content, applications and devices they want – is critical to unlocking the vast potential of the broadband Internet.”¹³⁸ In 2005, these freedoms were adopted by the FCC, and over the next two years, the Commission continued to expand the definition of information services set out in the 1996 Act to include wireless broadband Internet services and the transmission of Internet services over powerlines.¹³⁹ By classifying these forms of Internet distribution as information services, the FCC ensured that they would be subject to the lighter regulatory schema set out by the 1996 Act, and that local regulations to the contrary would be preempted.¹⁴⁰ At the time, both Congress and the FCC believed that minimal regulation promoted maximum growth.¹⁴¹

134. *Id.* at 996–97.

135. *Id.* at 997.

136. Michael K. Powell, *supra* note 21, at 5.

137. *Id.*

138. *Id.* at 3.

139. Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks, 22 F.C.C. Red. 5901, 5909–10 (2007); United Power Line Councils Petition for Declaratory Ruling, 21 F.C.C. Red. 13281, 13285 (2006).

140. 47 U.S.C. §§ 234(a)(4), (b)(2), 253(a), (d) (2019).

141. *Id.* § 234(b)(1)–(b)(2).

D. Preservation of the Internet's Open Architecture Calls for Increased Regulation

In 2008, the FCC found that Comcast, an Internet services provider, violated two of the four Internet freedoms proffered by Powell that the Commission adopted in its Internet Policy Statement, namely the freedom to access content and the freedom to use applications.¹⁴² An investigation launched by the Associated Press determined that Comcast “actively interfer[ed] with attempts by some of its high-speed Internet subscribers to share files online,” in some cases blocking sharing altogether.¹⁴³ This conduct was specifically directed at subscribers utilizing BitTorrent, a service which had become a competitive threat to cable companies such as Comcast.¹⁴⁴ BitTorrent allowed users to view videos online that they would otherwise pay to watch on cable.¹⁴⁵ This order served as one of the first instances in which the FCC attempted to regulate the behavior of ISP’s “traffic management” practices in the interest of equal access by users.¹⁴⁶ The Commission ultimately found that Comcast’s conduct was unreasonable, “invasive and outright discriminatory.”¹⁴⁷

Although the Supreme Court in *Brand X* specifically rejected that Title II vested the FCC with regulatory jurisdiction over ISPs, the Commission claimed its authority over Comcast derived from its “ancillary jurisdiction to regulate interstate and foreign communications” under Title I of the 1934

142. Formal Complaint of Free Press & Pub. Knowledge Against Comcast Corp., 23 F.C.C. Recd. 13028, 13034, 13050–52 (2008).

143. *Id.* at 13031.

144. *Id.* at 13030.

145. *Id.*

146. *See id.* at 13045–46.

147. *Id.* at 13051, 13059.

Act.¹⁴⁸ Because the FCC considered the “peer-to-peer TCP connections”¹⁴⁹ provided by Comcast to constitute a form of communication by wire, the Commission found that Comcast’s conduct fell under the FCC’s jurisdiction.¹⁵⁰ The United States Court of Appeals for the D.C. Circuit disagreed with the FCC’s ancillary jurisdiction argument and vacated the FCC’s 2002 Cable Modem Order two years later in *Comcast Corporation v. Federal Communications Commission* (“*Comcast*”).¹⁵¹ The court found that the Commission’s basis for ancillary jurisdiction over Comcast rested on policy reasons alone and thus, the FCC failed to support that exercising jurisdiction over Comcast was “reasonably ancillary” to the agency’s effective performance of “statutorily mandated responsibilities.”¹⁵²

In response to the appellate court’s decision, the FCC issued the 2010 Open Internet Order.¹⁵³ This Order relied on Section 706 of the 1996 Act which employed the FCC and state governments to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans”¹⁵⁴ In its Order, the Commission sought to protect the freedoms set-forth in the Internet Policy Statement by requiring ISPs to publicly disclose their management practices and prohibiting them

148. *Id.* at 13034–36; Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs., 545 U.S. 967, 976 (2005); *United States v. Southwestern Cable Co.*, 392 U.S. 157, 169–70, 172, 178 (1968) (holding that the FCC’s ancillary jurisdiction extended the agency’s regulatory control over cable television); Christopher J. Wright, *The Scope of the FCC’s Ancillary Jurisdiction After the D.C. Circuit’s Net Neutrality Decisions*, 67 FED. COMM. L.J. 19, 24 (2015).

149. A peer-to-peer (P2P) network allows users to share content with each other directly. P2P, TECHTERMS, <https://techterms.com/definition/p2p> [<https://perma.cc/K6A6-3QJR>] (explaining that “[i]n a P2P network, the “peers” are computer systems which are connected to each other via the Internet and files can be shared directly between systems on the network without the need of a central server.”).

150. *Formal Complaint of Free Press & Pub. Knowledge Against Comcast Corp.*, 23 F.C.C. Rcd. at 13035.

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

152. *Id.* at 655 (citation omitted).

153. *Preserving the Open Internet Broadband Indus. Practices*, 25 F.C.C. Rcd. 17905 (2010).

154. 47 U.S.C. § 706 (1997). While this section has been codified as § 1302, it is commonly referred to as § 706 as it appeared in the initial, uncodified version of the 1996 Telecommunications Act. *See, e.g.*, *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014); *United States Telecomm. Ass’n v. FCC*, 825 F.3d 674 (D.C. Cir. 2016).

from blocking lawful websites.¹⁵⁵ Through the creation of “narrowly tailored” rules, the FCC sought to preserve the open architecture of the Internet with the idea that this openness would encourage innovation and its continued development.¹⁵⁶ Again, the FCC was met with opposition by the D.C. Circuit Court.¹⁵⁷ In 2014, the court rejected the FCC’s blocking restrictions in *Verizon v. Federal Communications Commission*, finding the restrictions too closely resembled the regulations imposed on Title II telecommunication services and thus, were outside of the FCC’s authority when applied to information services.¹⁵⁸ The court did, however, uphold the disclosure requirement.¹⁵⁹

Following *Verizon*, it became clear that the separation of information and telecommunication services, which once served to further the FCC’s goal of encouraging the Internet’s growth, was becoming a roadblock to regulations necessary for consumer protection.¹⁶⁰ Where at one time, the growth of this industry was most threatened by government interference, government action was now necessary to prevent monopolization and restriction of public access.¹⁶¹ In November 2014, then-president Barack Obama appealed to the FCC, stating: “I believe the FCC should reclassify consumer broadband service under Title II of the Telecommunications Act,” the same section which houses the regulations imposed on the telecommunications industry.¹⁶² President Obama believed reclassification would allow for “the strongest possible rules to protect net neutrality.”¹⁶³

155. *Preserving the Open Internet Broadband Indus. Practices*, 25 F.C.C. Red. at 18019, ¶ 9.

156. *Id.* at 17984–85, ¶¶ 145, 148.

157. *See generally* *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).

158. *Id.* at 655–56.

159. *Id.* at 659.

160. *Preserving the Open Internet Broadband Indus. Practices*, 25 F.C.C. Red. at 17965, ¶ 112.

161. *Id.*

162. *Statement by the President on Net Neutrality*, THE WHITE HOUSE (Nov. 10, 2014), <https://obamawhitehouse.archives.gov/the-press-office/2014/11/10/statement-president-net-neutrality> [<https://perma.cc/ZJX3-GWL2>].

163. *Id.*

Soon after, the FCC responded to President Obama's request with a second Open Internet Order (referred to as the "2015 Open Internet Order") which reclassified "broadband Internet access service" from an information service to a telecommunications service.¹⁶⁴ The FCC's authority to reclassify the Internet in this way rested on the Supreme Court's decision in *Brand X*, requiring deference to classification decisions by federal agencies where the statute at issue is ambiguous.¹⁶⁵ This reclassification allowed the FCC to impose the blocking, throttling, and prioritization restrictions on ISPs that the Commission had originally proposed in the 2010 Open Internet Order.¹⁶⁶ Two years later, the 2015 Open Internet Order was upheld by a divided D.C. Circuit Court in *United States Telecom Association v. Federal Communications Commission*.¹⁶⁷ Here, the Commission argued "that although broadband often relies on certain information services to transmit content to end users, these services 'do not turn broadband Internet access service into a functionally integrated information service' because 'they fall within the telecommunications system management exception.'"¹⁶⁸ The Commission pointed to DNS and caching,¹⁶⁹ two information services thought to be essential to Internet use at the time, as falling under this exception.¹⁷⁰ The FCC explained that DNS and caching only helped facilitate user access to other services online and thus, were not so essential to Internet transmission that the classification of broadband Internet services as information services should be required.¹⁷¹

164. Protecting & Promoting the Open Internet, 30 F.C.C. Rcd. 5601, 5615 (2015).

165. Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs., 545 U.S. 967, 996–97 (2005).

166. Jacob Kastrenakes, *The FCC Just Killed Net Neutrality*, THE VERGE (Dec. 14, 2017, 1:12 PM), <https://www.theverge.com/2017/12/14/16776154/fcc-net-neutrality-vote-results-rules-repealed> [<https://perma.cc/TED2-7TVB>].

167. *United States Telecomm. Ass'n v. FCC*, 825 F.3d 674, 700 (D.C. Cir. 2016).

168. *Id.* at 699 (quoting *Protecting & Promoting the Open Internet*, 30 F.C.C. Rcd. at 5765).

169. See *infra* Section IV for a more detailed description of DNS and caching functionalities.

170. *United States Telecomm. Ass'n*, 825 F.3d at 699.

171. *Id.* at 699–700.

E. *The End of the Neutral Net*

On December 14, 2017, the FCC voted 3-2 along party lines to pass the Restoring Internet Freedom Order (RIFO).¹⁷² This decision followed the November 2016 election of Republican Donald Trump who joined a republican-controlled Congress.¹⁷³ In early January 2017, President Trump appointed Ajit Pai to lead the FCC, replacing former chairman and Net Neutrality proponent Tom Wheeler.¹⁷⁴ Pai took immediate action to repeal the restrictions on ISP blocking, throttling, and prioritization behaviors set forth in the 2015 Open Internet Order.¹⁷⁵ In describing the motivation behind RIFO, the FCC claimed the Order would create “a favorable climate for network investment . . . , spurring competition and innovation that benefits consumers.”¹⁷⁶ However, the FCC failed to consider the fact that competition amongst ISPs is largely illusory.¹⁷⁷

A competitive market requires that consumers have access to three or more options when choosing service providers.¹⁷⁸ “In wireless, for instance, the FCC and DOJ have repeatedly shot down mergers that would result in

172. Restoring Internet Freedom, 33 F.C.C. Rcd. 311, 311 (2018). This Order was later upheld, subject to modifications, by the D.C. Circuit Court in October, 2019. *Mozilla Corp. v. FCC*, 940 F.3d 1, 18 (D.C. Cir. 2019).

173. Julian Boger, *Democrats Fail to Retake Control of the Senate After Big Losses on Election Night*, THE GUARDIAN (Nov. 9, 2016), <https://www.theguardian.com/us-news/2016/nov/08/us-congress-election-results-senate-house-democrats-republicans> [https://perma.cc/K3AG-L57E].

174. Shawn Knight, *Ajit Pai to Replace Tom Wheeler as Head of the FCC*, TECHSPOT (Jan. 24, 2017, 7:00 AM), <https://www.techspot.com/news/67880-ajit-pai-replace-tom-wheeler-head-fcc.html> [https://perma.cc/HDF5-UKBX].

175. See Bio of Ajit Pai, FCC Chairman, FCC, <https://www.fcc.gov/about/leadership/ajit-pai#bio> [https://perma.cc/U8ZP-8AAX].

176. Press Release, Fed. Comm. Comm’n, FCC Acts to Restore Internet Freedom (Dec. 14, 2017), <https://www.fcc.gov/document/fcc-takes-action-restore-Internet-freedom> [https://perma.cc/7536-YZYD].

177. Sascha Segan, *Exclusive: Check Out the Terrible State of US ISP Competition*, PC MAG (Dec. 15, 2017, 12:43 PM), <https://www.pcmag.com/news/357972/exclusive-data-shows-the-terrible-state-of-us-isp-competitio> [https://perma.cc/P3WP-FGGX].

178. *Id.*

fewer than four nationwide carriers, for competitive reasons.”¹⁷⁹ However, a recent study that collected Internet speeds from consumers located in 21,511 of the United States’ 33,092 ZIP codes over five months showed that only 30% of those consumers had three or more ISP options.¹⁸⁰ “A free-market approach to internet access doesn’t work if there’s no free market.”¹⁸¹ With so little competition between ISPs, it is hard to reconcile the FCC’s reasoning with any projected increase in competition.¹⁸² The reason behind the lack of competition in the ISP market is subject to debate however, one explanation seems particularly convincing: it is simply too expensive to create the infrastructure necessary to provide Internet services.¹⁸³ It is unclear how RIFO will lessen the cost of infrastructure creation or otherwise encourage competition in the ISP market. It seems more likely that the ISPs currently in existence will benefit from the FCC’s Order while new companies will continue to be barred by the financial cost of entry into this market.

RIFO lifted the prohibition on blocking, throttling, and paid prioritization by ISPs, and reversed the Internet’s classification under Title II.¹⁸⁴ While the 2017 Order requires that ISPs publicly disclose¹⁸⁵ blocking, throttling, and prioritization behaviors, RIFO does not actually require that these providers refrain from doing so.¹⁸⁶ Thus, it appears that as long as ISPs issue the proper disclosures, these providers are free to offer consumers a browsing experience tailored in whichever way they choose.¹⁸⁷ By allowing ISPs

179. *Id.*

180. *Id.*

181. *Id.*

182. *Id.*

183. *Id.*

184. Restoring Internet Freedom, 33 F.C.C. Red. 311, 450 (2018).

185. *Disclosure Instructions for ISPs*, FCC (June 13, 2018), <https://www.fcc.gov/consumer-governmental-affairs/internet-service-provider-disclosures/disclosure-instructions-isps> [<https://perma.cc/C3Z4-UB65>] (outlining the Transparency Rule, 47 CFR § 8.1(a), which requires Internet service providers (ISPs) to disclose information about its broadband Internet access services in one of two ways: (1) by providing it on a publicly available, easily accessible website of its choosing or, (2) by submitting it to the FCC).

186. *See id.*

187. *See id.*

to harbor such control over the Internet experience they provide and inform consumers only after the fact, RIFO sets-forth a regulatory scheme that is inherently unbalanced and violates the very principles of competition and industrial growth which the Order claims to protect.

Although its name might suggest otherwise, RIFO does not restore Internet freedom. In fact, it appears that the 2017 Order does not even preserve the Internet freedom which already existed. Instead, the Order restores the Internet's classification as a Title I information service; a categorization already deemed unsatisfactory by the 2015 Open Internet Order.¹⁸⁸ The FCC's long and tumultuous history of Internet regulation met with judicial opposition sought to achieve one common purpose: to encourage the Internet's growth and accessibility.¹⁸⁹ By removing restrictions on blocking, throttling, and paid prioritization, RIFO does not achieve this purpose.¹⁹⁰ Instead, the 2017 Order fails to take into account the rapid and expansive growth of the Internet services industry and the evolution of regulatory framework necessary to accommodate it.¹⁹¹ How ISP's financially biased tailoring of user's Internet experience will affect the American people in the long-term is at best, speculative. However, a future without Net Neutrality is one in which users will lose agency over the media they consume and their worldviews, as accessibility online becomes a luxury only the wealthiest companies can afford and the content available represents the preferences of these fortunate few.

III. IMPACTS THIS REPEAL COULD HAVE ON THE ENTERTAINMENT INDUSTRY

By eliminating the safeguards which prevented ISPs from blocking, throttling, and engaging in paid prioritization, RIFO has the ability to detrimentally impact the future of the Internet.¹⁹² If ISPs choose to engage in this

188. *See generally* Protecting & Promoting the Open Internet, 30 F.C.C. Rcd. 5601, 5742, ¶ 328 (2015).

189. *See generally* Powell, *supra* note 21, at 1–2.

190. *See* Preserving the Open Internet Broadband Indus. Practices, 25 F.C.C. Rcd. 17905, 17985 (2010) (explaining why restrictions on this behavior are essential to the Internet's Open Architecture).

191. THE WHITE HOUSE, *supra* note 162.

192. Schaub, *supra* note 20, at 70–71.

once-prohibited conduct they will be capable of not only controlling Internet access by consumers, but also limiting the visibility of online companies.¹⁹³ On both sides of the payment hierarchy, those who can pay the most will reap the greatest benefit.¹⁹⁴ While the entertainment industry has yet to see major changes caused by the removal of these restrictions, to remain idle in the hopes that ISPs will still take a consumer-friendly approach in the years to come is “wishful thinking.”¹⁹⁵ The online streaming service industry, with its complete reliance on online distribution, is particularly vulnerable to ISP discrimination.¹⁹⁶ A payment hierarchy will disadvantage consumers and small businesses alike by creating financial barriers to entry and allowing “the Verizons and AT&Ts of the world . . . to determine what we watch and what we do by charging fees based on the user, the application, the content, [and] the platform.”¹⁹⁷

A. Increasing Popularity of Online Video Streaming Services

With research showing that consumers want to take an active role in their viewing experience, choosing the content they stream and connecting with friends while doing so, online streaming services such as Netflix and Hulu offer an ideal television experience.¹⁹⁸ Netflix, which boasts the largest user base of any online streaming service, reported 60.1 million United

193. *Id.*

194. *Id.*

195. *Id.* at 70.

196. James K. Wilcox, *How You'll Know Net Neutrality Is Really Gone*, CONSUMER REP. (June 11, 2018), <https://www.consumerreports.org/net-neutrality/end-of-net-neutrality-what-to-watch-for/> [<https://perma.cc/NFD6-3M7F>].

197. James E. McMillan, *FCC's Worrisome Repeal of Net Neutrality Laws*, L.A. LAW., May 2018, at 1, 36, <https://www.lacba.org/docs/default-source/lal-back-issues/2018-issues/may-2018.pdf> [<https://perma.cc/Y5VG-3B9L>].

198. Tefertiller, *supra* note 11, at 395, 401–03. Online streaming providers are also capable of providing consumers with a wider variety of content options which exceeds that available on cable. While cable providers are subject to the FCC's “must carry,” laws requiring that they dedicate channels to broadcast local networks, online streaming providers are not restricted by such rules. This allows online streaming providers to host a wide variety of content, making them an even more appealing option to consumers. WINSTON MAXWELL ET AL., REGULATION IN A DIGITAL AGE 1, 11 (2018).

States subscribers in the second quarter of 2019.¹⁹⁹ To put this in perspective, the highest number of cable subscriptions during any given year was reported as being nearly 69 million in the FCC's Eighth Annual Video Competition Report in 2001.²⁰⁰ The number of consumers subscribing to Netflix alone illustrates the pervasive impact that blocking, throttling, and prioritization of content by ISPs could have on this industry.

B. The Non-Neutral Net's Potential Consequences for Online Video Streaming Services

To outline the ramifications that blocking, throttling, and paid prioritization by ISPs may have on consumers' ability to access content online, a description of these once-prohibited behaviors are provided here. Subject to one exception,²⁰¹ blocking a website makes it impossible to access.²⁰² Throttling a website makes it more difficult to access by restricting the bandwidth available to your computer in processing the information necessary to display content.²⁰³ Put simply, throttling makes content difficult to load.²⁰⁴ Paid prioritization,²⁰⁵ on the other hand, translates to ISPs ability "to charge for

199. Amy Watson, *Number of Netflix Paying Streaming Subscribers Worldwide from 3rd Quarter 2011 to 2nd Quarter 2019 (in Millions)*, STATISTA (Aug. 9, 2019), <https://www.statista.com/statistics/250934/quarterly-number-of-netflix-streaming-subscribers-worldwide/> [<https://perma.cc/CP9G-LEPA>].

200. See generally *FCC Adopts 8th Annual Report on Competition in Video Markets*, FCC, at 1 (Jan. 14, 2002), <https://transition.fcc.gov/mb/8compnr.txt> [<https://perma.cc/T3YC-BU6B>].

201. See generally TJ McCue, *How Does A VPN Work?*, FORBES (June 20, 2019, 11:00 AM), <https://www.forbes.com/sites/tjmccue/2019/06/20/how-does-a-vpn-work/#187a973b70cd> [<https://perma.cc/5C6J-QRM5>] (describing how users may circumvent blocking by use of a Virtual Personal Network (VPN), which enables the user to connect to the network used by a different server somewhere in the Internet).

202. Keller, *supra* note 28.

203. Tim Fisher, *What Is Bandwidth?*, LIFEWIRE (Sept. 26, 2019), <https://www.lifewire.com/what-is-bandwidth-2625809> [<https://perma.cc/2V67-FJSW>].

204. *Id.*

205. Rob Frieden, *Internet Packet Sniffing and Its Impact on the Network Neutrality Debate and the Balance of Power Between Intellectual Property Creators and Consumers*, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 633, 652 (2008) (describing that to facilitate paid-prioritization and bandwidth throttling, ISPs utilize Internet routing equipment, including "packet sniffing" technology that analyzes the contents of the packets being sent using its server, which allows ISPs to assign priority to the information's transmission).

some Internet services to be sped up, while all the rest are slowed down.”²⁰⁶ It is also important to understand that throttling and prioritization work in tandem.²⁰⁷ “Because paid prioritization is a zero-sum game, speeding up some traffic means other traffic is, by comparison, slowed down.”²⁰⁸ If ISPs choose to enter into paid prioritization contracts with streaming services who can afford the fees, this could mean that those who refuse to do so could have their content throttled.²⁰⁹ This results in a “two-tiered Internet, destroying the web as we know it to make one preferred high-speed lane (with plenty of tollbooths), and a dirt road for those who can’t afford to upgrade.”²¹⁰ By giving ISPs the selective power to pick and choose what content to prioritize, the FCC has handed providers the tools to censor the Internet.²¹¹

While ISPs, as corporations, possess First Amendment rights, they do not possess First Amendment obligations to consumers which would prevent them from limiting consumer access.²¹² This means that ISPs do not owe their consumers an objective user experience which is uninfluenced by the agreements they enter into.²¹³ RIFO’s proponents argue that by eliminating Net Neutrality regulations, investment into and competition within the

206. Katherine Trendacosta, *Busting Two Myths About Paid Prioritization*, ELECTRONIC FRONTIER FOUND. (Apr. 16, 2018), <https://www.eff.org/deeplinks/2018/04/busting-two-myths-about-paid-prioritization> [<https://perma.cc/KM7S-8UJQ>].

207. Philip Berenbroick, *House Commerce Takes On Paid Prioritization, An Essential Tenet To The Open Internet*, PUBLIC KNOWLEDGE (April 12, 2018), <https://www.publicknowledge.org/blog/house-commerce-takes-on-paid-prioritization-an-essential-tenet-to-the-open-internet/> [<https://perma.cc/2HX7-VTCR>].

208. *Id.*

209. See Schaub, *supra* note 20, at 70.

210. *Network Neutrality and the Fight to Save the Internet: Background*, NAT’L COALITION AGAINST CENSORSHIP, <https://ncac.org/resource/network-neutrality-and-the-fight-to-save-the-Internet-background> [<https://perma.cc/9FRF-YDNM>].

211. See *id.*

212. *Citizens United v. FEC*, 558 U.S. 310, 310, 342–43 (2010) (holding that the “government may not, under the First Amendment, suppress political speech on the basis of the speaker’s corporate identity.”); Nina Totenberg, *When Did Companies Become People? Excavating the Legal Evolution*, NPR (July 28, 2014), <https://www.npr.org/2014/07/28/335288388/when-did-companies-become-people-excavating-the-legal-evolution> [<https://perma.cc/X9E3-RKAH>].

213. Dr. Joel Timmer, *Protecting and Infringing Free Speech? Net Neutrality and the First Amendment*, 1 F.C.L.J. 1, 11–12.

broadband arena will increase, creating an incentive for providers to offer “faster, better, and cheaper” Internet services to consumers.²¹⁴ It has yet to be seen whether this new and improved Internet will materialize as a result of Net Neutrality’s repeal. However, it seems likely that with ISPs free to engage in practices such as tiered Internet pricing, consumers will ultimately find themselves paying more for the same level of service from online streaming services, instead of less.²¹⁵ ISPs have a financial incentive to enter into prioritization deals with content streaming services because these deals allow ISPs to exchange greater content accessibility for economic gain.²¹⁶ ISPs also have a financial incentive to prioritize the content streaming services they own, making it easier for consumers to access provider-owned content and directing these users away from competing services.²¹⁷ These content providers may, in turn, displace the extra cost they pay to ISPs, in order to have their content prioritized, onto consumers through higher subscription fees.²¹⁸ Thus, while consumers may be provided with a “faster, cheaper and better”²¹⁹ Internet, these costs may simply be displaced elsewhere.

While ISPs have pledged “not to block or throttle or otherwise discriminate against legal online content such as that offered by Netflix and Hulu,” it is unclear what, if any, measures the FCC is taking to ensure this pledge is upheld.²²⁰ Notably, this pledge does not extend to cover paid prioritization,

214. *Restoring Internet Freedom*, FCC, <https://www.fcc.gov/restoring-internet-freedom> [<https://perma.cc/V234-YMEZ>].

215. James K. Wilcox, *supra* note 196.

216. *See id.*; *see also* Schaub, *supra* note 20, at 70–71.

217. Corynne McSherry et al., *Zero Rating: What it is and Why You Should Care*, ELECTRONIC FRONTIER FOUND. (Feb. 18, 2016), <https://www.eff.org/deeplinks/2016/02/zero-rating-what-it-is-why-you-should-care> [<https://perma.cc/7YPC-L47Q>].

218. James K. Wilcox, *supra* note 196.

219. *Restoring Internet Freedom*, *supra* note 214.

220. John Eggerton, *ISPs Renew Pledges Not to Block or Throttle*, BROADCASTING AND CABLE (Nov. 22, 2017), <https://www.broadcastingcable.com/news/isps-renew-pledges-not-block-or-throttle-170263> [<https://perma.cc/VY8U-6P68>]; *see also* Lauren C. Williams, *Net Neutrality Could Be Undermined by Lack of Penalties for ISPs that Break the Rules*, THINKPROGRESS (Mar. 19, 2015), <https://thinkprogress.org/net-neutrality-could-be-undermined-by-lack-of-penalties-for-isps-that-break-the-rules-61e5e01496c8/> [<https://perma.cc/LQ9M-EGQ3?type=image>] (explaining that ambiguity in the language of the FCC’s transparency requirement results in a situation where if ISPs are “caught throttling customers or blocking access, and the FCC imposes a \$10 million

meaning ISPs have not promised to abstain from charging online businesses higher fees in exchange for increased accessibility by consumers.²²¹ RIFO requires only that ISPs who have engaged in blocking, throttling, or paid prioritization disclose this information to their consumers “by providing it on a publicly available, easily accessible website of [their] choosing or,” alternatively, “by submitting it to the FCC.”²²² As of RIFO’s passing, power to take action against ISPs “for anticompetitive acts or unfair and deceptive practices” has been handed over to the Federal Trade Commission (FTC).²²³ However, the responsibility of monitoring ISPs to ensure they are adequately disclosing blocking, throttling, and prioritization behaviors appears to rest largely on consumers, with the FCC encouraging users “to file informal complaints for apparent violations of the transparency rule in order to assist the Commission in monitoring the broadband market.”²²⁴

A pay-to-play hierarchy, where content streaming services are required to pay in order to reach consumers, could mean that the structure of the online streaming service industry begins to model that of the cable industry where, “if you want to start a new channel and get significant placement, you better have a lot of money.”²²⁵ This structure, which streaming services have rebelled against, creates a financial barrier to entry.²²⁶ Smaller streaming services who lack the financial resources of industry giants will be unable to out-pay these larger companies in prioritization agreements with ISPs and thus, will be less accessible by consumers.²²⁷ As start-ups and smaller streaming services are pushed aside by larger companies, the content most

fine, the company can argue that it wasn’t given adequate notice and duck the fine, or any other that’s above \$25,000.”).

221. Eggerton, *supra* note 220.

222. *Disclosure Instructions for ISPs*, FCC, (June 13, 2018), <https://www.fcc.gov/disclosure-instructions-isps> [<https://perma.cc/B7YX-SQ33>].

223. *Restoring Internet Freedom*, *supra* note 214.

224. *Restoring Internet Freedom*, 33 F.C.C. Red. 311, 490 (2018).

225. Ted Johnson, *What the Repeal of Net Neutrality Will Mean for Hollywood*, VARIETY (Nov. 22, 2017, 9:39 AM), <https://variety.com/2017/biz/news/net-neutrality-repeal-hollywood-significance-1202621436/> [<https://perma.cc/X32H-PKH7>].

226. *See id.*

227. Schaub, *supra* note 20, at 71.

easily accessible online will be that provided by the wealthiest companies.²²⁸ With less streaming services able to afford the high cost of entry, innovation in this industry will be stifled.²²⁹ The Writers Guild of America, one of Hollywood's talent guilds, stated in response to these concerns that "without the rules, ISPs will be free to decide what content is available to Americans and on what terms, striking a blow to consumers and content creators alike."²³⁰

C. The Risk of ISP Monopolies in the Online Video Streaming Industry

Another concern is that the FCC will no longer be effective in policing the Internet to ensure ISPs are not monopolizing the video streaming industry.²³¹ "The FCC . . . will lose oversight over interconnection," which occurs when distinctive ISPs agree to share their respective Internet traffic across networks.²³² Interconnection acts as the "lifeblood of the Internet," and the agreement's ISPs enter into in connection with this practice are highly consequential on consumer access.²³³

Online streaming services have fought interconnection before.²³⁴ In 2014, Netflix opposed the merger of companies Comcast Corporation ("Comcast") and Time Warner Cable, Inc., ("Warner") the parent company of HBO, Turner, and other major video streaming services.²³⁵ In its petition

228. *Id.*

229. *Id.*

230. Johnson, *supra* note 225.

231. *Id.*

232. *Id.*; see generally *ISP Interconnection and Its Impact on Consumer Internet Performance*, MEASUREMENT LAB (Oct. 28, 2014), <https://www.measurementlab.net/publications/isp-interconnection-impact.pdf> [<https://perma.cc/CUF7-AFNB>].

233. *Id.*

234. See, e.g., *Petition to Deny of Netflix, Inc., Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Assign or Transfer Control of Licenses and Applications*, No. 14-57 (2014) (outlining Netflix's opposition to the merger of Comcast and Time Warner Cable, Inc. out of concern that the merger would incentivize Comcast to make Netflix and other online streaming services not owned by Turner less accessible by consumers through the charging of fees at interconnection points).

235. *Id.* at 1; *WarnerMedia*, AT&T, https://about.att.com/pages/company_profile_warner-media [<https://perma.cc/THA4-Z5NV>].

to deny the merger, Netflix argued that “[t]he combined entity would have the incentive and ability—through access fees charged at interconnection points and by other means—to harm Internet companies,” such as online streaming services.²³⁶ ISPs like Comcast, which offer traditional cable television services in addition to Internet services, face competition from companies like Netflix, which offer online streaming services, thus ISPs are incentivized to restrict consumer access to these sites.²³⁷ In its petition, Netflix pointed out that “[w]hile Comcast has adopted network neutrality rules for broadband access services,” it had created a “bandwidth crisis at interconnection points,” making it more difficult for consumers to access content on Netflix.²³⁸ In April of 2015, Comcast called off the merger “two days after meetings between Comcast and federal regulators, who had signaled that they were leaning toward blocking [it].”²³⁹

Three years later, in June of 2018, AT&T, the second largest provider of Internet services in the United States, acquired Comcast and Time Warner for 85 billion dollars.²⁴⁰ While the United States Government challenged the merger in the D.C. District Court, arguing that the merger would cause “harm to competition,” the court ultimately held that the government had “failed to carry its burden.”²⁴¹ This merger raised antitrust questions.²⁴² While AT&T and Warner did not offer the same services at the time of the merger, meaning they were not direct competitors, the Department of Justice (DOJ) voiced concerns that AT&T would “use its ownership of Time Warner’s ‘must-

236. *Petition to Deny of Netflix, Inc.*, *supra* note 234, at i.

237. *Id.* at 28.

238. *Id.* at 96.

239. Emily Steel, *Under Regulators’ Scrutiny, Comcast and Time Warner Cable End Deal*, N.Y. TIMES (Apr. 24, 2015), <https://www.nytimes.com/2015/04/25/business/media/comcast-time-warner-cable-deal.html> [<https://perma.cc/8KB5-PAXR>].

240. Daniel Hemli & Jackie Java, *What the AT&T/Time Warner Decision Means for Antitrust Enforcement*, JD SUPRA (June 28, 2018), <https://www.jdsupra.com/legalnews/what-the-at-t-time-warner-decision-48987/> [<https://perma.cc/R63H-SHED>].

241. *United States v. AT&T, Inc.*, No. 17-2511, 2018 WL 3752091, at *68, *74 (D.D.C. June 12, 2018).

242. *Id.* at *40.

have' popular content to increase its bargaining leverage"²⁴³ The DOJ feared that this bargaining leverage would allow AT&T to demand higher fees from competing services, which would ultimately be passed on to consumers.²⁴⁴ The DOJ also perceived this merger as threatening to innovation, arguing that the new entity would have the "incentive and ability to impede the growth of online video distribution services" because it would own both the content and the means of its distribution.²⁴⁵

Some of the DOJ's concerns previously materialized with practices like "zero-rating."²⁴⁶ Zero-rating is where "ISPs like Verizon and AT&T offer . . . consumers the ability to view some video on . . . [their] wireless plan without it counting against their data caps, while other types of content still do."²⁴⁷ Often times, the video content subject to zero-rating is that owned by the ISP.²⁴⁸ This behavior was criticized by both the Obama administration and the FCC as giving ISP-owned services an unfair competitive advantage.²⁴⁹ However, under the FCC's new leadership, the Commission has abandoned its zero-rating investigation, with Ajit Pai arguing that zero-rating benefits consumers by making it cheaper to access content online.²⁵⁰ While practices like zero-rating could make it cheaper for consumers to access some content, those who want to access video streaming services that are not partnered with their ISP could end up paying a much higher cost.²⁵¹ The anti-competitive and anti-innovative effects of practices like zero-rating,

243. Hemli & Java, *supra* note 240 (citation omitted); *see also United States v. AT&T, Inc.*, No. 17-2511, 2018 WL 3752091, at *69, *150.

244. Hemli & Java, *supra* note 240.

245. *United States v. AT&T, Inc.*, No. 17-2511, 2018 WL 3752091, at *165.

246. *See* Schaub, *supra* note 20, at 71.

247. *See* Johnson, *supra* note 225.

248. *Id.*

249. *Id.*

250. *See* Elliot Harmon & Gennie Gebhart, *FCC Abandons Zero-Rating Investigation and Moves Backward on Net Neutrality*, *Electronic Frontier Foundation*, ELECTRONIC FRONTIER FOUND. (Feb. 9, 2017), <https://www.eff.org/deeplinks/2017/02/fcc-abandons-zero-rating-investigation-and-moves-backward-net-neutrality> [<https://perma.cc/AKY7-7PTD>].

251. Schaub, *supra* note 20, at 70.

which already take place, present a more imminent threat to consumers than many of the long-term effects of a non-neutral net described.²⁵²

Zero-rating ultimately pushes consumers towards those services which offer the best rates, instead of the best content. The streaming services who benefit from zero-rating, and other forms of prioritization, are given an unfair advantage, with consumers funneled towards their content services at the expense of alternatives.²⁵³ By allowing ISPs to engage in blocking, throttling, and prioritization, RIFO has turned “service providers into gatekeepers,”²⁵⁴ destroying the open architecture of the internet which, at one time, seemingly allowed anyone anywhere to create and host content online. Zero-rating and similar practices, when utilized by ISPs, will ultimately limit the diversity of content streaming services available, with those who are not partnered with providers or which lack financial resources, unable to thrive in this ISP-controlled market.²⁵⁵ The long-term consequences of practices like zero-rating are capable of fundamentally changing the entertainment industry by awarding viewership on the basis of capital instead of artistic merit. Consumers may be pushed towards those services which offer the best rates instead of the best content.

D. China’s Great Firewall Serves as an Example of Internet Censorship’s Impact on Innovation

The detrimental effects of blocking, throttling, and paid prioritization on innovation are poignantly demonstrated by a comparison of these behaviors with China’s censorship policies.²⁵⁶ “For as long as there’s been an Internet, China has sought to monitor and control how its citizens use it.”²⁵⁷

252. See McSherry et al., *supra* note 217.

253. *Id.*

254. *Id.*

255. *Id.*

256. Grant Clark, *The Great Firewall of China*, BLOOMBERG NEWS (Nov. 8, 2018, 6:36 PM), <https://www.bloomberg.com/quicktake/great-firewall-of-china> [https://perma.cc/G5ZA-8CP8] (describing China’s censorship practices, including the country’s “employ[ment] [of] at least 50,000 people to enforce censorship, barring websites it disapproves of and forcing search engines to filter out content considered harmful.”).

257. Randy James, *A Brief History Of: Chinese Internet Censorship*, TIME (Mar. 18, 2009), <http://content.time.com/time/world/article/0,8599,1885961,00.html> [https://perma.cc/SH44-EW9H].

China's efforts are focused predominantly on minimizing public access to controversial government information through the monitoring of content hosted online.²⁵⁸ This content is passed through the country's censorship framework, known as China's "Great Firewall," which blocks or restricts access to "web sites on an array of sensitive topics"²⁵⁹ With companies held accountable for content they host online, even that which is user-generated, there are few options to circumvent this pervasive form of censorship.²⁶⁰

With a population north of 1.4 billion people,²⁶¹ China houses over 800 million Internet users.²⁶² Given the difficulty (or impossibility) of accessing certain webpages, these users gravitate towards government-favored websites, such as the Chinese-equivalents of Facebook and Google.²⁶³ "For those who stick to domestic and approved Chinese sites, the browsing experience is speedy and seamless."²⁶⁴ For those who do not, their browsing experience may feature prohibitively long loading times or websites that fail to load at all.²⁶⁵ Given the effects of China's censorship framework, companies targeting the massive Chinese user-base have little to no incentive to create content that risks being censored.²⁶⁶ Facebook, for example, which has historically been censored by China, is seeking to develop censorship tools that

258. *Id.*

259. *Id.*

260. Clark, *supra* note 256.

261. *Live Update of China's Population*, WORLDOMETERS (May 27, 2019), <https://www.worldometers.info/world-population/china-population/> [<https://perma.cc/RRW6-PZNV>].

262. Niall McCarthy, *China Now Boasts More than 800 Million Internet Users and 98% of Them Are Mobile*, FORBES (Aug. 23, 2018, 7:30 AM), <https://www.forbes.com/sites/niallmccarthy/2018/08/23/china-now-boasts-more-than-800-million-internet-users-and-98-of-them-are-mobile-infographic/#3ac5fb567092> [<https://perma.cc/W5CA-LD4J>].

263. See Nick Frisch, *What If You Couldn't See This Page?*, N.Y. TIMES (Dec. 14, 2017), <https://www.nytimes.com/2017/12/14/opinion/net-neutrality-china-internet.html> [<https://perma.cc/4F9L-2P7H>].

264. *Id.*

265. *Id.*

266. *See id.*

will allow its platform entry into the Chinese market.²⁶⁷ Companies like Facebook are not obligated to provide consumers with an uncensored user experience and have little incentive to ignore markets like China in hopes that their censorship policies will improve.²⁶⁸ Access to the massive Chinese user-base is financially lucrative and companies who stand to profit may not shy away from self-censorship if it facilitates their entry.²⁶⁹

China's censorship policy has a detrimental effect on its film industry, where "government censorship has blocked potential hits and compelled filmmakers to stick with safe formulas that aren't winning audiences."²⁷⁰ In 2019, China's box-office totals were reported as declining for the first time in at least ten years.²⁷¹ China's censorship policy not only limits what type of content may be produced, but also what inspiration creators are able to access online.²⁷² One article reports that "[w]ith the firewall blocking sites for obscure reasons, entrepreneurs on the mainland may struggle to innovate, as blocks on the web make them oblivious to many of the world's latest trends and practices."²⁷³

Looking back at Net Neutrality's repeal in the United States, distinctions can be made between the implications of RIFO and the effects of China's "Great Firewall."²⁷⁴ One distinction concerns where control over

267. *Id.*

268. *E.g., id.* ("As private businesses, they are not bound by the First Amendment. Self-censorship is simply good business.")

269. *See id.*

270. Sheryl Tian Tong Lee & Jinshan Hong, *China is Stifling its Own Movie Business*, BLOOMBERG (July 10, 2019, 2:00 PM), <https://www.bloomberg.com/news/articles/2019-07-10/china-s-movie-business-is-taking-a-hit-from-its-own-government> [<https://perma.cc/PV8B-589J>].

271. *Id.*

272. Beibei Bao, *How Internet Censorship is Curbing Innovation in China*, THE ATLANTIC (Apr. 22, 2013), <https://www.theatlantic.com/china/archive/2013/04/how-internet-censorship-is-curbing-innovation-in-china/275188/> [<https://perma.cc/R42F-VQH6>].

273. *China's Internet Censorship Should be Lifted for the Sake of the Economy and Innovators*, SOUTH CHINA MORNING POST (Apr. 15, 2018, 9:32 AM), <https://www.scmp.com/comment/letters/article/2141626/chinas-internet-censorship-should-be-lifted-sake-economy-and> [<https://perma.cc/68B3-BRER>].

274. *See, e.g.,* Frisch, *supra* note 263 (comparing the future of Internet in the United States to censored Internet in China).

the Internet resides.²⁷⁵ In China, the government controls the provision of Internet services, while in the United States, this control rests with ISPs.²⁷⁶ Whether one is more dangerous for consumers is subject to debate, however, the opportunity for corruption in both is undeniable. As described in Part II, consumers throughout the United States possess limited options when choosing an ISP, with only 30% of consumers given a choice between three or more providers.²⁷⁷ Thus, the Chinese government's centralized control over the Internet is not so different from the concentrated control of major ISPs over the provision of Internet services in the United States.²⁷⁸

The motivation underlying the creation of a tailored user experience in China is blatantly political. However, there is nothing suggesting that the underlying political motivations of those granted preferential treatment by ISPs in America will not, in the long-term, result in a comparable bias in the availability of online resources. The consequences of zero-rating appear to illustrate yet another similarity between China's censorship practices and the non-neutral net in the United States. Using censorship to block access to websites such as Facebook or Google, China has driven consumers to access Chinese-owned equivalent services.²⁷⁹ Similarly, in the United States, practices like zero-rating motivate consumers through the offering of lower subscription fees or increased accessibility, to access certain preferred services at the expense of alternatives.²⁸⁰ Much like censorship has stifled Chinese innovation, ISPs, by blocking, throttling, and prioritizing content, have the

275. *Id.*

276. *Id.* (explaining that “[c]ontent providers — companies like Facebook and LinkedIn — are not, after all, common carriers . . . [and] do not control the pipes, or carry a unique public trust in the eyes of the government,” unlike “American telecom companies — those that do control the pipes.”).

277. Segan, *supra* note 177 (outlining a study conducted by PC Mag which “looked at test data from more than 20,000 ZIP codes across the country.”).

278. *See id.*; *see also* Lee & Hong, *supra* note 270.

279. Frisch, *supra* note 263; *see also* Paige Leskin, *Here are all the Major US tech Companies Blocked Behind China's 'Great Firewall'*, BUSINESS INSIDER (Oct. 10, 2019, 9:23 AM), <https://www.businessinsider.com/major-us-tech-companies-blocked-from-operating-in-china-2019-5> [<https://perma.cc/Z8S2-GFAP>].

280. *See* McSherry et al., *supra* note 217.

power to skew users towards accessing services that are ISP-owned or financially capable of paying for prioritization.²⁸¹ ISPs are private corporations which have an incentive to profit.²⁸² As a result, consumer access to content online may be tailored to meet the expectations of relationships into which ISPs have entered, much like consumer access in China is tailored to the Chinese Government's political regime. China's censorship policy illustrates the detrimental impact that restrictions on consumer access to content online can have on innovation and consumers alike.²⁸³

IV. SOLVING THE NON-NEUTRAL NIGHTMARE

With the FCC having turned its back on Net Neutrality, it is up to state and local governments, as well as online businesses, to preserve the Internet's open architecture. As set-forth above, the effects of RIFO on the video streaming service industry could be detrimental, harming innovation, competition, and consumers alike by creating financial barriers to entry. Thus, the time for intervention is now.

First, this Section will summarize the unsuccessful efforts of states and private organizations to reverse RIFO in *Mozilla Corporation v. Federal Communications Commission*²⁸⁴ ("Mozilla"), a case that was decided by the D.C. Circuit Court in October, 2019. Second, California's ability to enact its own, state-specific Net Neutrality legislation will be addressed in light of the D.C. Circuit Court's decision to vacate the FCC's preemption powers under RIFO. An analysis of the federal mechanisms which remain as threats to California's legislative authority over the regulation of Internet services will accompany this discussion. Furthermore, the Federal Government's case against California, to preempt its state-specific Net Neutrality law, will be described as an important opportunity for clarification of the *Mozilla* decision. Third, municipal provision of broadband Internet services will be described as a promising alternative to the legislative route. Finally, the implementation of city-wide broadband monitoring will be presented as a method of holding ISPs accountable, regardless of the current state of RIFO or legislation in this area.

281. *See id.*

282. *See Segan, supra* note 177.

283. Bao, *supra* note 272; Lee & Hong, *supra* note 270.

284. 940 F.3d 1 (D.C. Cir. 2019).

A. *Mozilla v. FCC: How States and Private Organizations Attempted to Overturn RIFO*

On October 1, 2019, the D.C. Circuit Court decided the *Mozilla* case,²⁸⁵ issuing an opinion that seemingly nailed another stud into Net Neutrality's coffin. This decision put an end to the lawsuit that states and private organizations had initiated against the FCC in response to RIFO over a year and a half prior.²⁸⁶ Petitioners, led by Mozilla Corporation, argued that the FCC's decision was "arbitrary and capricious"²⁸⁷ and "that the FCC's order unlawfully purport[ed] to preempt state and local regulation of broadband service."²⁸⁸ The D.C. Circuit Court majority found in favor of the FCC, upholding RIFO and deeming the FCC's reclassification of the Internet under Title I valid.²⁸⁹ Despite RIFO's validity, the majority vacated the portion of the Order that outlined the FCC's broad authority to preempt state regulation of Internet services.²⁹⁰ The majority's decision invited debate by the concurring and dissenting opinions. Judge Millett, concurring in the judgment, pointed out that the Supreme Court's decision in *Brand X*, relied on by the majority, has become outdated as a result of the technological advancements that have been made in the Internet services industry.²⁹¹ The lone dissenter, Judge Williams, envisioned an entirely different outcome with respect to the majority's decision to vacate RIFO's preemption directive based on, what he

285. *Id.* at 1.

286. See E-mail from Markham C. Erickson, Couns., Mozilla Corporation, to Thomas M. Johnson, Gen. Couns., Federal Communications Commission (Feb. 22, 2018), <https://blog.mozilla.org/wp-content/uploads/2018/02/Mozilla-Petition-for-Review-WC-Docket-No.-17-108-Letter-to-FCC-22Feb2018.pdf> [<https://perma.cc/RGA7-M6F2>]; see Protective Petition For Review, *New York, et al. v. FCC*, No. 18-1013 (D.C. filed Jan. 16, 2018).

287. Proof Brief for Government Petitioners at 15, *Mozilla Corp. v. FCC*, No. 18-1051(L) (D.C. Aug. 20, 2018).

288. *New York v. FCC*, No. 18-1013 (D.C. filed Jan. 16th, 2018) (listing the states included in the lawsuit as being California, Connecticut, Delaware, Hawaii, Illinois, Iowa, Kentucky, Maine, Maryland, Massachusetts, Minnesota, Mississippi, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, Washington and the District of Columbia).

289. *Mozilla*, 940 F.3d at 18, 35.

290. *Id.* at 18, 74.

291. *Id.* at 87 (Millett, J., concurring).

believes, is the proper interpretation of existing precedent derived from the United States Supreme Court.²⁹²

In addressing RIFO's validity, the D.C. Circuit, "approach[ed] the issue through the lens of the Supreme Court's decision in *Brand X*."²⁹³ In *Brand X*, the Supreme Court applied the analytical framework it had established in *Chevron* as applicable to issues involving the authority of federal agencies.²⁹⁴ Because *Brand X* relied heavily on the framework delineated in *Chevron*, it is appropriate to offer a description of the *Chevron* decision here. *Chevron* involved a dispute between the states and the Environmental Protection Agency (EPA) over the meaning of the term, "stationary source," as used in the Clean Air Act Amendments of 1977 (the "Amendments").²⁹⁵ The Supreme Court ultimately found the EPA's interpretation of stationary sources as encompassing whole industrial plants reasonable, applying a two-prong analysis that has become known as the *Chevron* framework.²⁹⁶ The first *Chevron* factor asks "whether Congress has directly spoken on the question at issue."²⁹⁷ If the intent of Congress is clear, the court has adequate guidance to interpret the statute and does not owe deference to the agency's interpretation.²⁹⁸ If Congress has not directly spoken on the issue, but has instead been ambiguous or silent, leaving "a gap for the agency to fill," the agency possesses regulatory authority.²⁹⁹ Where the agency possesses regulatory authority, the reviewing court must exercise deference in answering the second question in *Chevron*: Whether the agency's interpretation of the statute is reasonable.³⁰⁰ The deferential standard of the *Chevron* framework favors decisions made by federal agencies, giving them "controlling weight

292. *Id.* at 96–97 (Williams, J., dissenting).

293. *Id.* at 18 (majority opinion).

294. Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs., 545 U.S. 967, 969 (2005); *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842–43 (1984).

295. *Chevron*, 467 U.S. at 837.

296. *Id.*

297. *Id.* at 842.

298. *Id.* at 842–43.

299. *Id.* at 843–44.

300. *Id.*

unless they are arbitrary, capricious, or manifestly contrary to the statute.”³⁰¹ Where an agency’s decision is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law,” the Administrative Procedure Act requires that it be set aside by the court.³⁰²

In *Brand X*, the Supreme Court was tasked with determining whether the FCC had properly classified broadband cable modem services as information services under Title I of the 1996 Act.³⁰³ This issue of classification revolved around the FCC’s interpretation of “telecommunications services” and “information services” as defined in the Act.³⁰⁴ In applying the first prong of the *Chevron* analysis, the Supreme Court found that Section 151 of the 1996 Act, which employs the FCC to “prescribe such rules and regulations as may be necessary . . . to carry out the [1996 Act’s] provisions,” evidenced Congress’s intent that the interpretation of this Act fall under the FCC’s jurisdiction.³⁰⁵ Moving on to the second *Chevron* factor, the Supreme Court found that the FCC’s interpretation of “information services,” as including cable modem services was permissible under the 1996 Act.³⁰⁶ The Commission reasoned that, “because [cable modem service] provides consumers with a comprehensive capability for manipulating information using the Internet,” it fell within the 1996 Act’s definition of information services.³⁰⁷ In making this argument, the FCC pointed specifically to Domain Name Services (DNS) and caching, two functionalities it deemed inseparable to the Internet’s transmission and use, which require the manipulation component necessary to satisfy this definition.³⁰⁸ In other words, the FCC argued that because a couple of processes tied to the provision of Internet services could be classified as information services, Internet services as a whole should be too.

301. *Id.*

302. 5 U.S.C. § 706 (2020).

303. *Brand X*, 545 U.S. at 975.

304. *Id.*

305. *Id.* at 980.

306. *Id.* at 971.

307. *Id.* at 987.

308. *Id.* at 999.

Ten years after the D.C. Circuit Court's decision in *Brand X*, the FCC issued the 2015 Open Internet Order, reclassifying Internet services as telecommunications services under Title II of the Communications Act.³⁰⁹ The FCC then reclassified Internet services again seven years later with RIFO, this time as information services back under Title I.³¹⁰ Thus, when *Mozilla* was brought in front of the D.C. Circuit Court, the Internet's classification had come full circle. The court was asked to answer the same question it had answered in *Brand X*: whether the FCC's classification of Internet services under Title I of the Communications Act was valid.³¹¹ Addressing the first *Chevron* factor, the D.C. Circuit Court followed the binding precedent set forth by *Brand X*, finding that the 1996 Act had left issues of classification to the Commission's discretion.³¹² Turning to the second *Chevron* Factor, the D.C. Circuit Court was equally bound by *Brand X*.³¹³ Once again, DNS and caching were found to be indispensable to the online user experience and so "inextricably intertwined" with Internet services as to render the Internet's classification as an information service reasonable.³¹⁴

While the Supreme Court's decision in *Brand X* bound the Circuit Court's opinion in *Mozilla*,³¹⁵ the relevance of *Brand X*'s application fifteen years after it was decided is questionable. In her concurrence, Judge Millett describes how the technological landscape has shifted since *Brand X*.³¹⁶ She argues that the major role that "auxiliary services like DNS and caching" once played in Internet access has decreased substantially over the last fifteen years.³¹⁷ DNS, which at the time of *Brand X* was available only as part

309. See generally Protecting & Promoting the Open Internet, 30 F.C.C. Rcd. 5601 (2015) (reclassifying the Internet as a telecommunications service under Title II).

310. See generally Restoring Internet Freedom, 33 F.C.C. Rcd. 311 (2018) (reclassifying the Internet as an information service under Title I).

311. *Mozilla Corp. v. FCC*, 940 F.3d 1, 18–19 (D.C. Cir. 2019).

312. *Id.* at 19–20.

313. *Id.* at 20.

314. *Id.* at 21.

315. *Id.* at 89 (Millett, J., concurring).

316. *Id.* at 90–91.

317. *Id.*

of the Internet services provisioned by ISPs, is now available through a variety of online providers.³¹⁸ Similarly, the prevalence of caching, which does not work when a website is encrypted, has dramatically decreased as encrypted user traffic reached 50% in 2017.³¹⁹ By relying on these functionalities to support its classification of the Internet as an information service, Judge Millett concludes that “the Commission misses the technological forest for a twig.”³²⁰ This point is of particular importance, with Judge Millett emphasizing that *Brand X* has become “unhinged from the realities of modern broadband service” and as a result, modern Internet regulation risks becoming “trapped . . . in technological anachronism.”³²¹

It is clear that the Internet today is dramatically different than the Internet as it existed “during the bygone era of iPods, AOL, and Razr flip phones,” when *Brand X* was decided.³²² If the *Mozilla* decision is appealed to the Supreme Court, *Brand X* may finally be retired and replaced with precedent that is more relevant to the current technological landscape and favorable to Net Neutrality.³²³ Alternatively, Congress could enact legislation that speaks directly to the Internet’s classification and thus, replace *Brand X* as the guiding precedent in this area.³²⁴ This option, however, seems much less likely to favor Net Neutrality. The Net Neutrality debate has become a political issue, with conservatives largely in favor of repealing these regulations.³²⁵ Under the current administration, in which both the executive branch and Senate are Republican-controlled,³²⁶ federal legislation in this area is likely to mirror RIFO, removing Net Neutrality protections.

318. *Id.* at 90.

319. *Id.* at 91.

320. *Id.* at 94.

321. *Id.* at 89.

322. *Id.* at 87.

323. *Id.* at 89.

324. *Id.*

325. Kate Patrick, *How Political Messaging Drives the Net Neutrality Debate*, INSIDE SOURCES (April 10, 2019), <https://www.insidesources.com/how-political-messaging-drives-the-net-neutrality-debate/> [<https://perma.cc/UC4S-54ZN>].

326. *Id.*

As of the *Mozilla* decision, RIFO is in full effect and ISPs continue to enjoy the freedom to block, throttle, and prioritize content online that they did as of the Order's passing in 2018.³²⁷ However, the fight for Net Neutrality may not be over. By vacating the portion of RIFO which outlined the FCC's broad preemption authority under this Order, it appears that the D.C. Circuit has opened the door to state regulation of Internet services.³²⁸ However, until the *Mozilla* decision is applied to a case involving a state law which conflicts with RIFO, the intricacies of the D.C. Circuit Court's opinion when applied to a real-world scenario are unknown. While the *Mozilla* decision is clear as to the FCC's lacking authority to preempt state regulations which conflict with RIFO,³²⁹ this does not mean that state regulation in this area is immune to other federal obstacles such as conflict preemption or the dormant Commerce Clause. As described by Williams in *Mozilla*, "[t]he consequences of the Commission's choice of Title I depend on its having authority to preempt."³³⁰ How RIFO will be enforced, in light of the FCC's lacking authority to preempt, is unclear.

B. California Aims to Restore Net Neutrality with Senate Bill 822

On September 30, 2018, eight months after Net Neutrality's repeal, California Governor Jerry Brown approved Senate Bill 822, which would replace many of the safeguards abandoned by the FCC.³³¹ This new state law would, "[prohibit] . . . ISPs, from blocking or slowing access to legal online content, demanding special fees from websites to prioritize their traffic or charging customers for special exemptions to caps on their data."³³² While the Bill promised a restoration of Net Neutrality to Californians, it

327. *Mozilla*, 940 F.3d at 18 (majority opinion).

328. *Id.* at 86.

329. *Id.*

330. *Id.* at 97 (Williams, J., dissenting).

331. California Internet Consumer Protection and Neutrality Act of 2018, S. 822, 2018 Sen., Reg. Sess. (Cal. 2018).

332. Alex Johnson, *California Enacts Net Neutrality Bill, DOJ Counters With Lawsuit*, NBC NEWS (Oct. 1, 2018, 1:40 AM), <https://www.nbcnews.com/tech/Internet/gov-jerry-brown-signs-bill-restore-net-neutrality-california-n915221> [<https://perma.cc/LF7G-2E43>].

never got the opportunity to do so.³³³ The same day Governor Jerry Brown signed Senate Bill 822, the Federal Government announced its plan to sue California for attempting to interfere with federal legislation.³³⁴ The government's case against California, *United States v. California*, was then filed in the Eastern District of California.³³⁵ In support of Senate Bill 822's preemption, the DOJ argued that the Bill "unlawfully imposes burdens on the Federal Government's deregulatory approach to the Internet," making enforcement of RIFO by the FCC nearly impossible.³³⁶ Ultimately, California and the DOJ agreed to stay *United States v. California* until the D.C. Circuit Court rendered its decision in *Mozilla*.³³⁷ Now that the D.C. Circuit has done so, this case is more important than ever. While the D.C. Circuit Court's opinion vacates the FCC's Preemption Directive under RIFO,³³⁸ it is unclear whether other bars may exist to state regulation of Internet services. *United States v. California* could be the first decision to illustrate the application of *Mozilla* to a conflicting state law. Furthermore, if the court in *United States v. California* ultimately upholds California's Bill, this could represent a massive step towards achieving Net Neutrality nationwide.³³⁹

333. *Id.*

334. Klint Finley, *California Will Pause Net Neutrality Law for Federal Suit*, WIRED (Oct. 26, 2018, 4:52 PM), <https://www.wired.com/story/california-will-pause-net-neutrality-law-for-federal-suit/> [<https://perma.cc/UX7G-RKU5>].

335. Memorandum of Law in Support of Plaintiff's Motion for Preliminary Injunction, *United States v. California*, No. 2:18-at-01539 (E.D. Cal. Sept. 30, 2018).

336. *Justice Department Files Net Neutrality Lawsuit Against the State of California*, DEP'T OF JUST. (Sept. 30, 2018), <https://www.justice.gov/opa/pr/justice-department-files-net-neutrality-lawsuit-against-state-california-0> [<https://perma.cc/9K9A-W2V4>].

337. Stipulation Regarding Temporary Stay Of Litigation And Agreement Not To Enforce Senate Bill 822, *United States v. California*, No. 2:18-at-01539 (E.D. Cal. Oct. 3, 2018).

338. *Mozilla*, 940 F.3d at 86 (majority opinion).

339. *QuickFacts California*, UNITED STATES CENSUS BUREAU (July 1, 2019), <https://www.census.gov/quickfacts/CA> [<https://perma.cc/XVM6-LETL>] (listing California's population, as of July 1, 2019, as 39,512,223); Hans Johnson, *California's Population*, PUBLIC POLICY INSTITUTE OF CALIFORNIA (Mar. 2017), <https://www.ppic.org/publication/californias-population/> [<https://perma.cc/L27Q-R6NJ>] (describing California as "the most populous state in the nation."); Makena Kelly, *California's Net Neutrality Bill Could Set a National Standard*, THE VERGE (June 4, 2018), <https://www.theverge.com/2018/6/4/17414384/california-net-neutrality-bill-washington-epa> [<https://perma.cc/YEY2-LTRU>] (describing California's history of "single-handedly forcing national legislation . . .").

1. The D.C. Circuit Court Rejects the FCC's Preemption Directive

Denying the FCC's power to preempt under RIFO, the *Mozilla* majority found that the Commission had made a "fatal" mistake when it "ignored binding precedent by failing to ground its sweeping Preemption Directive . . . in a lawful source of statutory authority."³⁴⁰ Judge Williams disagreed with this finding in the dissenting portion of his opinion.³⁴¹ Here, Williams argued that the FCC, while lacking express authority to preempt, possessed implied authority stemming from the Supreme Court's decisions in *Brand X*, *Chevron*, and other applicable case precedent.³⁴²

The D.C. Circuit Court previously set-out the limited circumstances in which the FCC possesses authority to preempt state law in *Public Service Commission of Maryland v. Federal Communications Commission* ("*Maryland*").³⁴³ In this case, the court held that, "FCC preemption of state regulation is . . . permissible when (1) the matter to be regulated has both interstate and intrastate aspects . . . ; (2) FCC preemption is necessary to protect a valid federal regulatory objective . . . ; and (3) state regulation would 'negate[] the exercise by the FCC of its own lawful authority.'"³⁴⁴ The final factor is met where the interstate and intrastate aspects of the service are so intertwined that state regulation would interfere with the FCC's authority to do the same.³⁴⁵ The court's decision in *Maryland* clarified that "the FCC cannot regulate (let alone preempt state regulation of) any service that does not fall within its Title II jurisdiction over common carrier services or its Title I jurisdiction over matters 'incidental' to communication by wire."³⁴⁶ This same principle was instructed by the Supreme Court two years prior in *City of New York v. FCC*, where the court lamented that, "an agency literally has no

340. *Mozilla*, 940 F.3d at 74.

341. *Id.* at 102–04 (Williams, J., dissenting).

342. *Id.* at 104.

343. *Pub. Serv. Comm'n of Md. v. F.C.C.*, 909 F.2d 1510, 1515 (D.C. Cir. 1990).

344. *Id.* (quoting *Nat'l Ass'n of Regulatory Utility Comm'rs v. FCC*, 880 F.2d 422, 429 (D.C. Cir. 1989)).

345. *Id.*

346. *Id.* at 1514 n.4.

power to act, let alone pre-empt the validly enacted legislation of a sovereign State, unless and until Congress confers power upon it.”³⁴⁷

When a service is classified under Title II of the 1934 Act, the FCC possesses “express and expansive authority” to regulate it.³⁴⁸ Thus, by default, the majority found that when the FCC reclassified Internet services under Title I, the Commission lost its express authority to preempt state action under Title II.³⁴⁹ However, as identified by the court in *Maryland*, the FCC may still possess the power to preempt where the subject in question is, “incidental to [the] transmission [of communication by wire].”³⁵⁰ This authority, known as ancillary jurisdiction, is available to the FCC when: “(1) the Commission’s general jurisdictional grant under Title I of the Communications Act covers the regulated subject and (2) the regulations are reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.”³⁵¹ As dictated by the D.C. Circuit Court’s decision in *Comcast*, the “mandated responsibilities” referenced must be set forth in “Title II, III or VI of the Act.”³⁵² Given that RIFO reclassified the Internet under Title I, the standard for ancillary jurisdiction was not met, and the majority found that the FCC failed to establish authority to preempt on this basis as well.³⁵³

As was upheld by the Supreme Court in *Brand X*, the FCC possesses the requisite authority under the Communications Act to interpret its various titles and classify services within them.³⁵⁴ This is evidenced by the FCC’s classification of Internet services under Title II of the 1996 Act in its 2015

347. *Mozilla*, 940 F.3d at 80 (majority opinion) (citations omitted).

348. *Id.* at 76 (citations omitted).

349. *Id.* at 75–76.

350. *Pub. Serv. Comm’n of Md.*, 909 F.2d at 1514 (citations omitted).

351. *Mozilla*, 940 F.3d at 76 (citations omitted).

352. *Comcast Corp. v. FCC*, 600 F.3d 642, 655 (D.C. Cir. 2010).

353. *Mozilla*, 940 F.3d at 75–76.

354. *Id.* at 84.

Open Internet Order and the Commission's reclassification of Internet services under Title I of this act with RIFO.³⁵⁵ Which title the FCC ultimately chooses to classify a service under will determine the Commission's ability to regulate it, with Title II services subject to substantially greater federal regulation than Title I services.³⁵⁶ Ultimately, the *Mozilla* court found that by classifying Internet services under Title I of the 1996 Act but subsequently seeking to regulate the Internet as a Title II service, "the Commission overlook[ed] the Communications Act's vision of dual federal-state authority and cooperation in this area specifically."³⁵⁷ If the FCC wanted to increase its regulatory authority over Internet services it could, as it has done before, by reclassifying these services under Title II.³⁵⁸ However, the current political climate makes this alternative seem highly unlikely. The head of the FCC, Ajit Pai, who was appointed by President Donald Trump, has actively fought against the Internet's classification under Title II.³⁵⁹

Instead, the FCC must ground its authority to preempt in the Internet's classification as it stands today, under Title I. Citing to the Supreme Court's decision in *Brand X*, Williams argued in his dissenting opinion that the FCC's authority to interpret and classify services under Title I implied that the Commission was authorized to preempt state regulation of Title I services.³⁶⁰ Williams also pointed to the inseparability of the interstate and intrastate components of Internet services as requiring that the FCC possess power to preempt under the impossibility exception.³⁶¹ This exception, "allows the FCC to preempt state regulation of a service if (1) it is not possible to separate the interstate and intrastate aspects of the service, and (2) federal regulation is necessary to further a valid federal regulatory objective."³⁶²

355. See *Protecting & Promoting the Open Internet* 30 F.C.C. Rcd. 5601, 5601 (2015); see also *Restoring Internet Freedom*, 33 F.C.C. Rcd. 311, 311 (2018).

356. See 47 U.S.C. § 201 (2019); see also § 151.

357. *Mozilla*, 940 F.3d at 81.

358. See generally *Protecting & Promoting the Open Internet*, 30 F.C.C. Rcd. at 5601.

359. Knight, *supra* note 174.

360. *Mozilla*, 940 F.3d at 98–99 (Williams, J., dissenting).

361. *Id.* at 96.

362. *Minn. Pub. Utilities Comm'n. v. FCC*, 483 F.3d 570, 578 (8th Cir. 2007).

The majority disagreed with William's finding that the FCC possessed implied authority to preempt. First, the majority noted that this argument fails by default, as it was not advanced by the FCC as a justification for the Commission's authority to preempt and instead, was William's own "invent[ion]."³⁶³ Next, the majority explained that, even if this argument were at issue, Williams failed to show how the FCC's implied authority to preempt would act as a substitute for the Commission's lacking jurisdiction under the Communications Act.³⁶⁴ "[T]he Commission's power to choose one regulatory destination or another does not carry with it the option to mix and match its favorite parts of both."³⁶⁵ This means that the FCC, by choosing to classify Internet services under Title I, cannot now use its regulatory authority under Title II as a basis for preemption.

With *Mozilla* vacating a portion of the FCC's Order, proponents may consider this as a silver lining, welcoming states to pass their own legislation concerning net neutrality. At the same time, the *Mozilla* decision muddies the waters. Specifically, *Mozilla* does not appear to definitively answer whether conflicting state laws will avoid federal preemption altogether, or only preemption by the FCC under the Preemption Directive. Furthermore, conflict preemption and the dormant Commerce Clause, as discussed below, remain as federal roadblocks to state-specific legislation. This makes the federal government's case against California that much more important. *United States v. California* could serve as the first application of the *Mozilla* decision, showcasing how state laws will navigate the legislative arena now that RIFO's preemption directive has been vacated.

2. Federal Preemption May Still Present a Barrier to State Success

While the D.C. Circuit Court rejected the FCC's broad authority to preempt state regulation of the Internet under RIFO, the Court's opinion appears to leave the door open to other forms of federal preemption as possible alternatives to estop state laws.³⁶⁶ The Federal Government's power to preempt state law which interfere with its own is derived from the Supremacy Clause of the United States Constitution which, in Article IV, states:

363. *Mozilla*, 940 F.3d at 82 (majority opinion).

364. *Id.* at 82–83.

365. *Id.* at 84.

366. *Id.* at 85.

This Constitution, and the laws of the United States which shall be made in pursuance thereof; and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land; and the judges in every state shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.³⁶⁷

Out of the Supremacy Clause came various forms of federal preemption, including conflict preemption.³⁶⁸ Conflict preemption works to protect federal laws by estopping, “state laws that *under the circumstances of the particular case* stand[] as an obstacle to the accomplishment and execution of the full purposes and objective of Congress.”³⁶⁹ Conflict preemption does not serve as an outright ban on all state legislation in a particular area, only that which is in direct interference with federal law.³⁷⁰

The FCC, in arguing that the Preemption Directive should be upheld, reasoned that application of conflict preemption to state laws interfering with RIFO would render the same, broad preemptory effect as the Directive.³⁷¹ The D.C. Circuit Court did not outright disagree with the Commission that the principle of conflict preemption, if applied to a conflicting state law, could render that law moot.³⁷² However, the Court refused to uphold the broad Preemption Directive on this reasoning alone, finding that conflict preemption requires the court to perform a unique, fact-intensive analysis of the specific conflicting state or local law called into question and thus, cannot be used as a basis to block any and all legislation in a specific area.³⁷³ Conflict preemption requires the court to answer, “‘an issue incapable of resolution in the abstract,’ let alone in gross.”³⁷⁴ Thus, the D.C. Circuit Court’s

367. U.S. CONST. art. VI, cl. 2.

368. *Arizona v. United States*, 567 U.S. 387 (2012).

369. *Mozilla*, 940 F.3d at 81.

370. *Id.*

371. *Id.*

372. *Id.*

373. *Id.* at 81–82.

374. *Id.* at 81.

ruling infers that if a conflicting state law were to be presented, it would not be subject to automatic preemption under the Directive, however it could still be preempted if, after analysis, a court found the law to impermissibly interfere with RIFO.³⁷⁵

3. The Dormant Commerce Clause May Pose an Additional Federal Obstacle

State laws in conflict with RIFO may face prohibition if challenged under the dormant Commerce Clause (“DCC”).³⁷⁶ This doctrine is an implied extension of the Commerce Clause which gives Congress the power to, “regulate Commerce with the foreign Nations, and among the several States, and with the Indian Tribes.”³⁷⁷ While the Commerce Clause grants Congress affirmative regulatory authority, under certain circumstances, “it imposes limitations on the States.”³⁷⁸ In *South Dakota v. Wayfair* (“*Wayfair*”), the Supreme Court enumerated the behaviors prohibited by the DCC as follows: “First, state regulations may not discriminate against interstate commerce [S]econd, States may not impose undue burdens on interstate commerce.”³⁷⁹ Of particular interest to the discussion here is whether California’s Senate Bill 822, if passed, could be found to violate the DCC by being unduly burdensome on interstate commerce; engaging in the second prohibited behavior identified in *Wayfair*.³⁸⁰

375. This distinction mirrors that which divides facial and as-applied challenges to Federal statutes. *Field Day, L.L.C. v. County of Suffolk*, 463 F.3d 167, 174 (2d Cir. 2006) (“A ‘facial challenge’ to a statute considers only the text of the statute itself, not its application to the particular circumstances of an individual. An ‘as-applied challenge,’ on the other hand, requires an analysis of the facts of a particular case to determine whether the application of the statute” is unconstitutional as applied to an individual).

376. Thomas B. Nachbar, *The Peculiar Case of State Network Neutrality Regulation*, 37 CARDOZO ARTS & ENT. L.J. 659, 690 (2019).

377. U.S. CONST. art. 1, § 8, cl. 3.

378. *South Dakota v. Wayfair, Inc.*, 138 S. Ct. 2080, 2089 (2018).

379. *Id.* at 2091.

380. This section provides a general description of the dormant Commerce Clause and a cursory overview of how the dormant Commerce Clause may preempt state law. The description of the dormant Commerce Clause provided in this section does not delve into the intricacies of this clause or its application.

In determining whether an Arizona state law was unduly burdensome, the Supreme Court in *Pike v. Bruce Church* (“*Pike*”) focused on the relationship between the burden imposed by the law and the local interests it served.³⁸¹ There, the law mandating specific packaging for cantaloupes and other produce transported out of the state was challenged by California as being unduly burdensome on interstate commerce.³⁸² In analyzing California’s claim, the Supreme Court laid out the following rule to be used in interpreting the burden of a particular state law: “Where the statute regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits.”³⁸³ The Supreme Court ultimately found that Arizona’s interest in, “meet[ing] certain standards of wholesomeness and quality,” in an effort to uphold the states reputation in the produce industry, was insufficient to justify the burden its law imposed on interstate commerce.³⁸⁴ Many subsequent cases have found that otherwise valid enactments under a state’s police power were too burdensome on interstate commerce and hence invalid under the DCC.³⁸⁵

Turning now to California’s Senate Bill 822, a description of the burden this law has the potential to impose on interstate commerce will first be presented and then weighed against California’s putative interest in enacting it.

a. Senate Bill 822’s Potential Burden on Interstate Commerce

Traditionally, Internet services have been treated as interstate services.³⁸⁶ This is evident from the exclusive regulation of the Internet by the Federal Government since it came into existence.³⁸⁷ The D.C. Circuit court’s

381. *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970).

382. *Id.* at 138.

383. *Id.* at 142.

384. *Id.* at 142–43.

385. *Great Atlantic & Pac. Tea Co. v. Cottrell*, 424 U.S. 366, 381 (1976); *Kassel v. Consol. Freightways Corp. of Delaware*, 450 U.S. 662, 678 (1981).

386. Nachbar, *supra* note 376, at 689.

387. *Id.*

new ruling may have changed that, appearing to open the door to state regulation in this area, at least marginally.³⁸⁸ However, how states will be able to regulate Internet services given the fundamentally interstate nature of the Internet is unclear.³⁸⁹ While California's law applies only to those providers who serve Californians, the Bill fails to appreciate that the ISPs transmitting these services may do so from across state lines.³⁹⁰ This ambiguity is described by Williams in his dissenting opinion in *Mozilla*.³⁹¹ Williams points out that the inseparability of interstate and intrastate transmissions of Internet services make it unlikely that ISPs will distinguish between them, causing these providers to apply the most stringent state regulation nation-wide and abandoning RIFO.³⁹² Williams' factual view seems valid. Thus, California's Bill in practice could effectively regulate out-of-state conduct, conduct which the state does not possess, "a legitimate interest in regulating."³⁹³ Furthermore, the behavior which California's law seeks to prevent, namely blocking and prioritization, can take place at various points along the journey from ISP to consumer, meaning that enforcement of the law within the state alone is not likely to render the desired result.³⁹⁴ If passed, California's Bill will impose some degree of burden on interstate commerce; however, whether this burden is unconstitutional requires further analysis.

b. Putative Local Benefits of Senate Bill 822

For California's law to be upheld under the standard set forth in *Pike*, its putative local benefit must outweigh the burden it causes interstate commerce.³⁹⁵ In addressing the putative local benefit of a specific law, courts

388. *Mozilla Corp. v. FCC*, 940 F.3d 1, 86 (D.C. Cir. 2019).

389. Nachbar, *supra* note 376, at 690.

390. California Internet Consumer Protection and Neutrality Act of 2018, S. 822, 2018 Sen., Reg. Sess. (Cal. 2018); *see also* Nachbar, *supra* note 376, at 692 (explaining that Senate Bill 822 will likely apply to out-of-state ISPs).

391. *Mozilla*, 940 F.3d at 97 (Williams, J., dissenting).

392. *Id.*

393. Nachbar, *supra* note 376, at 690.

394. *Id.* at 691–92.

395. *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970).

look to the benefit that the legislation purports to advance.³⁹⁶ Whether this benefit is ultimately realized is not of consequence to this analysis.³⁹⁷ Instead, it only matters that the legislature, in passing the law, acted on the assumption that it would confer such benefits.³⁹⁸ If a putative benefit exists, this purported benefit must outweigh the law’s burden on interstate commerce.³⁹⁹ If it does, then the court will uphold the law and any future preclusion will be dependent on Congress who may still enact legislation which directly preempts the state law in question.⁴⁰⁰

Section I of Senate Bill 822 sets forth the purpose underlying this law, providing that it will “protect and promote the safety, life, public health, public convenience, general prosperity, and well-being of society, and the welfare of the state’s population and economy, that are increasingly dependent on an open and neutral Internet.”⁴⁰¹ California’s legislature goes on to state that “[a]lmost every sector of California’s economy, democracy, and society is dependent on the open and neutral Internet.”⁴⁰² The sectors enumerated as those protected by Senate Bill 822 include: “police and emergency services”; “[h]ealth and safety services and infrastructure”; “[e]ducation”; and “[b]usiness and economic activity.”⁴⁰³ Police and fire personnel, for example, depend on the Internet to transmit real time alerts, informing them of emergencies. Senate Bill 822 ensures that these alerts will not be slowed or otherwise blocked by the ISP servicing these professionals.

If California’s law is challenged under the DCC, the State should focus on advancing how the Bill’s benefit to public safety—by protecting police, first responders, and more—outweighs its consequential burden on interstate commerce. In *Mozilla*, the D.C. Circuit Court remanded the portion of RIFO

396. *Perfect Puppy, Inc. v. City of East Providence*, 98 F. Supp. 3d 408, 417 (D.R.I. 2015).

397. *Id.*

398. *Id.*

399. *Id.*

400. Martin H. Redish & Shane V. Nugent, *The Dormant Commerce Clause and the Constitutional Balance of Federalism*, DUKE L.J. 569, 570 (1987).

401. California Internet Consumer Protection and Neutrality Act of 2018, S. 822, 2018 Sen., Reg. Sess. (Cal. 2018).

402. *Id.*

403. *Id.*

in which the FCC addresses public safety concerns, finding that the FCC had failed to adequately address this issue.⁴⁰⁴ Based on the importance the D.C. Circuit has placed on these concerns, California's law is more likely to survive a DCC challenge if public safety is emphasized.⁴⁰⁵ This determination is, however, ultimately at the discretion of the court. While it seems California may succeed in arguing that its Bill confers a substantial putative benefit to its residents, Senate Bill 822's potential to regulate out-of-state commerce is not likely to be overlooked.⁴⁰⁶ If Senate Bill 822 is ultimately found to violate the DCC, this does not mean that California is out of options. By acting as a market participant under an exception to the DCC, California may be able to offer its own broadband services to those living in the state without facing federal preemption or prohibition.

C. *Cities Takeover as ISPs, Distributing Internet Service as a Utility*

If you cannot beat them, join them. As illustrated by this old adage, state and local governments, if unsuccessful in their efforts to replace Net Neutrality by regulation, may want to consider engaging in the provision of municipally-owned broadband services.⁴⁰⁷ Local governments are composed of publicly held officials who are more responsive to the concerns of their citizens than are privately-held corporations who can take their business elsewhere.⁴⁰⁸ This public-control makes government's less susceptible to the financial incentives which may motivate privately-owned ISPs to engage in the blocking, throttling and prioritization of content.⁴⁰⁹ Thus, by creating their own infrastructure capable of offering Internet services, state and local

404. *Mozilla Corp. v. FCC*, 940 F.3d 1, 59 (D.C. Cir. 2019) (majority opinion).

405. *See id.* at 59–63.

406. *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970) (setting forth the rule to apply in ascertaining whether a law unduly burdens interstate commerce).

407. David Z. Morris, *Could Threats to Net Neutrality Spark Interest in Local Broadband?*, FORTUNE (Dec. 28, 2017), <https://fortune.com/2017/12/28/net-neutrality-municipal-broadband/> [<https://perma.cc/F5CE-8JQP>].

408. *Id.*

409. *See generally id.*

governments have the ability to provide their citizens with an alternative service to that offered by ISPs.⁴¹⁰ This alternative service has the ability to create a local market which is not guarded by financial barriers to entry, giving start-ups with limited financial resources the opportunity to offer their services to consumers online without being edged out by competition from industry giants with deeper pockets and limitless resources.⁴¹¹ Importantly, this solution is less likely to face preemption, or prohibition by the Federal Government than the adoption of state-specific Net Neutrality laws.⁴¹²

1. State and Local Governments May Participate in the Market as Competitors

The DCC, which prohibits states from enacting laws that “discriminate against or impose an undue burden on interstate commerce,”⁴¹³ does not prevent state and local governments from competing with private businesses by offering their own equivalent goods and services to consumers.⁴¹⁴ By choosing to do so, these entities fall under an exception to the DCC known as the market participant doctrine.⁴¹⁵ The market participant doctrine distinguishes states as regulators of a market from states as participants in a market.⁴¹⁶

State and local governments operating as market participants under this exception are treated, in many respects, as private businesses by the Supreme Court.⁴¹⁷ This distinction originates with the Supreme Court’s ruling in *New*

410. Adam Sneed, *What Can Cities and States Do About Net Neutrality?*, CITYLAB (Dec. 15, 2017), <https://www.citylab.com/solutions/2017/12/what-can-cities-and-states-do-about-net-neutrality/548546/> [<https://perma.cc/3SAL-2JYK>].

411. *See generally id.*

412. *See generally id.* (presenting municipally owned broadband as an alternative to other preempted solutions to Net Neutrality’s repeal).

413. David S. Bogen, *The Market Participant Doctrine and the Clear Statement Rule*, SEATTLE U. L. REV. 543 (2006).

414. *United Haulers Ass’n v. Oneida-Herkimer Solid Waste Management Authority*, 550 U.S. 330, 342 (2007).

415. Bogen, *supra* note 413, at 552.

416. *Id.* at 546.

417. *New York v. United States*, 326 U.S. 572, 579 (1946).

York v. United States.⁴¹⁸ There, the Supreme Court held that New York, by bottling and selling water, could not enjoy “sovereign” immunity from federal taxes as it would have otherwise had it been providing government-related services.⁴¹⁹ New York, deciding to engage in the water-bottling business, was treated the same as any other privately-held business.⁴²⁰ Furthermore, in the Supreme Court’s later decision rendered in *United Haulers Association v. Oneida-Herkimer Solid Waste Management Authority*, the Court found that states may make their provision of services to consumers conditional, much like any private business can.⁴²¹ In this case, the Supreme Court held that flow ordinances put in place by the defendant, a government entity, did not violate the DCC because the defendant provided its own county-wide waste management services.⁴²² By restricting its own services through the imposition of these flow ordinances, the defendant was subject to the same constitutional limitations it would have been, had it been acting in its capacity as a state when imposing these same regulations on third parties.⁴²³

The market participant doctrine allows state and local governments who compete with other privately-owned businesses to restrict their own provision of goods and services without violating the Commerce Clause.⁴²⁴ When these governments act as market participants, they are able to operate their business much like any other competitor is able to operate theirs.⁴²⁵ States acting under the market participant exception are in no way exempt from federal law and are still subject to regulation by Congress in the same way that private businesses are.⁴²⁶ However, the constitutional limitations which would ordinarily block certain behaviors by the state, in the interest

418. *See id.* at 582.

419. *Id.* at 575.

420. *Id.* at 579.

421. 550 U.S. 330, 347 (2007).

422. *Id.* at 343–44.

423. *Id.*

424. Bogen, *supra* note 413, at 543.

425. *Id.*

426. *Id.* at 545.

of preserving the balance of power between the state and federal governments, do not apply.⁴²⁷

Furthermore, precedent supports that courts are less likely to find that implied preemption precludes state ordinances put in place by states acting as market participants.⁴²⁸ Federal law may expressly or impliedly preempt state law.⁴²⁹ Express preemption occurs when the language of the federal law includes phrases which explicitly indicate the law is intended to preempt state law regulating the subject matter in question.⁴³⁰ In contrast, implied preemption “focus[es] on Congress’s intent,” where the federal law in question does not contain explicit language precluding state regulation of the subject matter.⁴³¹ There are two subcategories of implied preemption, one of which is conflict preemption (described above as a potential bar to state regulation of Internet services).⁴³² Thus, if California acts as a market participant in providing broadband services, courts could be less likely to find the state’s regulation of this service precluded by conflict preemption. However, if Congress were to pass a law which explicitly prohibits states from regulating broadband, California would be expressly preempted from doing so regardless of whether it does so when acting as a market participant.

The Supreme Court’s majority and dissenting opinions in *City of Burbank v. Lockheed Air Terminal* (“*Burbank*”) illustrate how local governments engaged in the regulation of a privately-owned commodity are differentiated from local governments engaged in the regulation of one that is municipally-owned in that they are not barred by a finding of implied preemption.⁴³³ In this case, the Court found that Burbank’s imposition of an ordinance which restricted air travel between the hours of 11:00 p.m. and 7:00 a.m. was preempted by the Federal Aviation Act of 1958 (“Aviation

427. *Id.*

428. *City of Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624, 634 (1973).

429. JAY B. SYKES & NICOLE VANATKO, CONG. RESEARCH SERV., R45825, FEDERAL PREEMPTION: A LEGAL PRIMER 2 (2019).

430. *Id.*

431. *Id.* at 17.

432. *Id.* at 2.

433. *City of Burbank*, 411 U.S. at 634; *id.* at 651 (Rehnquist, J., dissenting).

Act”), which outlawed state and local regulation of aircraft noise.⁴³⁴ In its reasoning, the Court referred to the Senate and House reports on the Aviation Act which stated, in pertinent part, that this act was intended to preempt state and local regulation of aircraft noise but not to preempt regulation by private airport operators.⁴³⁵ In his dissent, Justice Rehnquist argued that the majority’s emphasis on this differentiation inferred that, had the local government owned the airport,⁴³⁶ they would not have been preempted by the Aviation Act from regulating aircraft noise.⁴³⁷

2. California May Be Well-Suited to Implement This Solution

If state and local governments are able to erect their own infrastructure, or purchase or condemn⁴³⁸ the infrastructure necessary to transmit Internet services, they will be able to offer an Internet alternative to their citizens. This Internet alternative is capable of providing consumers with a user experience untailed by the financial incentives of their ISP while providing small, online businesses with a market that is not guarded by financial barriers to entry.⁴³⁹ If they choose to do so, judicial precedent supports that state and local governments will be able to structure their provision of these services without facing federal preemption.⁴⁴⁰ As supported by the Court’s reasoning in *Lockheed*, state and local governments regulating the provision of

434. *Id.* at 625–33 (majority opinion).

435. *Id.* at 634.

436. *Hollywood-Burbank Airport Authority President William B. Rudell Signing Documents 1977*, BURBANK IN FOCUS (Jan. 7, 2017), <https://burbankinfocus.org/islandora/object/islandora%3A1263> [<https://perma.cc/4E4X-J3AX>] (providing that in 1997, four years after the decision in Burbank was rendered, the cities of Burbank, Glendale, and Pasadena purchased Lockheed Air Terminal together and began operating it as a public air terminal).

437. *City of Burbank*, 411 U.S. at 651 (Rehnquist, J., dissenting).

438. Local government’s condemnation power would likely be adequate for this purpose. See *Kelo v. City of New London*, 545 U.S. 469 (2005) (finding that the city’s condemnation of land owned by unwilling sellers did not violate the Takings Clause because it was taken to benefit the public). State and local governments seeking to avoid the high installation costs of Internet services infrastructure may consider making a similar argument in favor of condemnation.

439. See generally Sneed, *supra* note 410.

440. See *City of Burbank*, 411 U.S. at 634 (majority opinion).

municipally-owned Internet services in their area are likely to be more successful than they would be attempting to regulate ISPs.⁴⁴¹ Contract restrictions, which have the same practical effect as regulation, could not only serve to protect consumer access, but to place competitive pressure on the privately-owned ISPs serving their area to offer comparable services.⁴⁴² In response to the growing interest in municipally-owned broadband across the states, ISPs have spent over \$92 million dollars lobbying for regulations prohibiting it.⁴⁴³ While twenty-five states have outlawed its practice, California has not.⁴⁴⁴ In fact, California has already begun providing broadband services in certain contexts.⁴⁴⁵ Through the state's creation of the K-12 High Speed Network, California provides broadband services to public schools and it plans to do the same for public libraries.⁴⁴⁶ Furthermore, the California Broadband Council, which was established by the California legislature in 2010, and the California Broadband Cooperative are working to promote the provision of broadband services in, "unserved and underserved areas of the state."⁴⁴⁷ Thus, it seems that California has begun taking steps towards the state-wide provision of broadband services. As a state which has pioneered so many regulations which have expanded nationwide, California may be the best-suited candidate to implement this solution⁴⁴⁸ which at this time seems to be the most promising alternative to the reinstatement of Net Neutrality.

441. *Id.*

442. Sneed, *supra* note 410.

443. Kendra Chamberlain, *Municipal Broadband is Roadblocked or Outlawed in 25 States*, BROADBANDNOW (April 17, 2019), <https://broadbandnow.com/report/municipal-broadband-road-blocks/> [<https://perma.cc/YM6F-6QNF>].

444. *Id.*

445. *California K-12 High Speed Network*, CAL. DEPT. OF EDUC. (May 23, 2018), <https://www.cde.ca.gov/ls/et/hs/> [<https://perma.cc/6NM8-CGSD>].

446. *Id.*; *High-Speed Broadband in California Libraries*, CAL. ST. LIBR., <https://library.ca.gov/services/to-libraries/broadband> [<https://perma.cc/K24J-5NWM>].

447. *Welcome to the California Broadband Council*, CAL. BROADBAND COUNCIL (Oct. 17, 2019), <https://broadbandcouncil.ca.gov> [<https://perma.cc/QL4L-WHJS>]; *Mission Statement*, CAL. BROADBAND COOPERATIVE <https://www.cbccoop.com> [<https://perma.cc/PLL8-JMQX>].

448. Makena Kelly, *California's Net Neutrality Bill Could Set a National Standard*, THE VERGE (June 4, 2018), <https://www.theverge.com/2018/6/4/17414384/california-net-neutrality-bill-washington-epa> [<https://perma.cc/L4BR-K7WE>].

D. City-Wide Monitoring of Broadband Speeds to Increase ISP Accountability

In the absence of Net Neutrality, monitoring where and when bandwidth throttling occurs can help keep ISPs accountable.⁴⁴⁹ At this time, it is unclear what efforts the FCC will take to ensure ISP compliance with disclosure laws.⁴⁵⁰ Thus, it will be up to consumers, private organizations, and state and local governments to monitor broadband speed and notify the FCC when Providers have failed to issue proper disclosures.⁴⁵¹

Cities control the service agreements they enter into with ISPs to service those living in their area.⁴⁵² Thus, cities that collect “quality information on Internet speeds across neighborhoods” can use this information to put pressure on their Internet service providers.⁴⁵³ If ISPs engage in unwanted blocking or data throttling behaviors, cities can decide to terminate the provider and receive services from a competitor.⁴⁵⁴ Cities have taken action against ISPs providing unsatisfactory services before.⁴⁵⁵ In *New York v. Charter Communications* (“*Charter Communications*”), the City of New York sued Spectrum, an Internet provider, for misrepresenting its Internet speeds after an investigation prompted by thousands of consumer complaints

449. Chris Bousquet, *How Data Visualization Can Help Cities Save Net Neutrality*, DATA-SMART CITY SOLUTIONS (Dec. 14, 2017), <https://datasmart.ash.harvard.edu/news/article/how-data-visualization-can-help-cities-save-net-neutrality-1183> [<https://perma.cc/QP73-S7CW>].

450. See FED. COMM. COMM’N, GUIDANCE ON OPEN INTERNET TRANSPARENCY RULE REQUIREMENTS (2016).

451. See *id.*

452. Eric Null, *How Local Legislatures are Fighting for Better Broadband Privacy*, PAC. STANDARD (Nov. 15, 2018), <https://psmag.com/social-justice/localities-fight-for-better-broadband-security> [<https://perma.cc/N2JN-VH6T>].

453. Bousquet, *supra* note 449.

454. *Id.*

455. See generally *New York v. Charter Commc’ns, Inc.*, No. 450318/2017, 2018 WL 919991 (N.Y. Sup. Ct. Feb. 16, 2018).

revealed that the provider “falsely advertise[d] Internet speeds beyond its capability.”⁴⁵⁶ Ultimately, New York won.⁴⁵⁷

State consumer protection laws, like those which prohibit fraud, are not generally preempted by federal economic regulation.⁴⁵⁸ For example, in *Charter Communications*, the court found that the FCC’s Transparency Rule, which requires providers to report honest information regarding the cost and speed of their Internet services,⁴⁵⁹ did not preempt New York State consumer protection laws.⁴⁶⁰ Here, the court found that Spectrum’s compliance with the Federal Transparency Rule did not make it exempt from compliance with state laws governing ““fraud, deception, and false advertising”⁴⁶¹ However, previous attempts by California to create regulations which require disclosure have been subject to preemption.⁴⁶² Thus, if California attempts to create regulations that require citizens to disclose their broadband speed, the state may again be precluded. California is more likely to be successful if it instead creates a voluntary reporting system from which the state is able to collect and analyze information provided by citizens who choose to report. While this solution does not replace Net Neutrality, it offers one alternative approach that allows states to maintain baseline control over the quality of Internet services being offered to their citizens.

V. CONCLUSION

The Internet, as it exists today, could soon become victim to the damaging effects of concentrated control and corporate greed. ISP’s ability to

456. Liz Robbins, *A Victory for Spectrum Cable Customers: Charter to Pay \$75 Refunds and Offer Free HBO*, N.Y. TIMES (Dec. 18, 2018), <https://www.nytimes.com/2018/12/18/nyregion/charter-cable-settlement-lawsuit.html> [<https://perma.cc/YU4C-LTN7>]; see *Charter Commc’ns, Inc.*, 2018 WL 919991, at *18.

457. *Charter Commc’ns, Inc.*, 2018 WL 919991, at *25.

458. See generally *id.* at *5–9.

459. FED. COMM. COMM’N, GUIDANCE ON OPEN INTERNET TRANSPARENCY RULE REQUIREMENTS (2016).

460. *Charter Commc’ns, Inc.*, 2018 WL 919991, at *24.

461. *Id.* at *8 (citation omitted).

462. See generally *Am. Ins. Ass’n v. Garamendi*, 539 U.S. 396 (2003) (holding that California’s law requiring insurance companies to publicly disclose their policies was federally preempted).

block, throttle, and prioritize content will stifle innovation in the online streaming service industry, ultimately harming small businesses and consumers.⁴⁶³ With ISPs seemingly standing as the only party to benefit, consumers, state and local governments, and private organizations need to begin asking: How does this repeal benefit me?⁴⁶⁴

How the non-neutral net will affect consumers and online streaming services long-term is unknown at this time.⁴⁶⁵ But whether these changes mean that consumers will be unable to access their favorite content online,⁴⁶⁶ or unable access breaking news when a natural disaster affects their area,⁴⁶⁷ the principle is the same: an Internet without Net Neutrality is not an Internet which serves the American people. Film and television provide society with a medium in which we may illustrate our current attitudes, fears, and fumbles.⁴⁶⁸ It is this creativity which forms the anthropological roadmap of human evolution. With the D.C. Circuit Court upholding RIFO,⁴⁶⁹ and the success of equivalent state Internet regulations unclear, proponents of net neutrality should begin inquiring into other ways to keep the Internet unrestricted and free. Encouraging alternatives like municipal provision of broadband or city-wide broadband monitoring could be the only way to preserve the Internet as a creative powerhouse which benefits all.

463. Schaub, *supra* note 20 at 70–71.

464. *See id.* at 70.

465. Dinha, *supra* note 35.

466. *See, e.g.*, Formal Complaint of Free Press & Pub. Knowledge Against Comcast Corp., 23 F.C.C. Rcd. 13028, 13031 (2008) (describing Comcast's interference with subscriber's access to content using BitTorrent).

467. Phil Helsel, *Verizon Admits 'throttling' Data to Calif. Firefighters Amid Blaze*, NBC NEWS (Aug. 22, 2019, 4:00 PM), <https://www.nbcnews.com/tech/tech-news/verizon-admits-throttling-data-calif-firefighters-amid-blaze-n902991> [<https://perma.cc/2RFZ-EGDN>] (describing Verizon's throttling of Santa Clara County fire station during a fire); *Mozilla Corp. v. FCC*, 940 F.3d 1, 60 (D.C. Cir. 2019).

468. *See* David Heuring, *Preserving Our Heritage: Film Remains the Best Archive Material*, INT'L DOCUMENTARY ASS'N (Dec. 2004), <https://www.documentary.org/feature/preserving-our-heritage-film-remains-best-archive-material> [<https://perma.cc/A5KC-B3WZ>].

469. *Mozilla*, 940 F.3d at 18, 35.