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NETWORK NEUTRALITY GENERATES A CONTENTIOUS DEBATE AMONG EXPERTS: SHOULD CONSUMERS BE WORRIED?

Cody Vitello*

I. Introduction

It has been forty years since the invention of the Internet,¹ and like any aging technology, the Internet is not immune to the proverbial mid-life crisis. With 1.7 billion, or just over a fourth of the world's population using the Internet,² and with the expectation that Internet traffic will quadruple by the year 2013,³ many fear that the current antiquated system will not be able to support the rising level of demand without some form of data discrimination.⁴ This concern is only exacerbated by the fact that active mobile-phone Internet users have nearly doubled between 2006 and 2008.⁵ Popular economic literature is quick to point out that

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¹ *The Internet at Forty*, THE ECONOMIST, Sept. 4, 2009, http://www.economist.com/science~technology/displaystory.cfm?story_id=E1_TQPJTRNN [hereinafter THE ECONOMIST]. Internet history will be discussed in Part II.A. *infra*.

² Internet World Stats, *World Internet Usage Statistics*, www.internetworldstats.com/stats.htm (last visited Mar. 7, 2010) [hereinafter World Stats]. Of the 1.7 billion Internet users, 227 million are Americans. Internet World Stats, *United States Internet Usage*, www.internetworldstats.com/am/us.htm (last visited Mar. 7, 2010) [hereinafter USA Stats].

³ *The Rights of Bits*, THE ECONOMIST, Sept. 24, 2009, available at http://www.economist.com/businessfinance/displaystory.cfm?story_id=E1_TQVTSQNN [hereinafter *Rights of Bits*].

⁴ See, e.g., *Rights of Bits*, *supra* note 3; THE ECONOMIST, *supra* note 1; Avis Yates Rivers, Editorial, *Network Neutrality; Hysteria Makes for Bad Law*, THE SEATTLE TIMES, Dec. 20, 2007, available at http://seattletimes.nwsourc.com/html/opinion/2004083048_broadband20.html; Tim Wu, *Why You Should Care About Network Neutrality*, SLATE May 1, 2006, <http://www.slate.com/id/2140850/>.

⁵ THE NIELSEN CO., *Critical Mass: The Worldwide State of the Mobile Web*, (2008), available at http://nl.nielsen.com/site/documents/nielsen_mobile.pdf [hereinafter NIELSEN].

any finite resource facing increasing levels of demand will have to address its scarcity dilemma by imposing some form of allocation mechanism.⁶

Such allocation mechanisms, or network-management tools, employed by Internet service providers ("ISPs") to control traffic on their infrastructure is at the core of the network neutrality debate.⁷ Proponents of network neutrality ("proponents") contend that Internet traffic manipulation can, and ultimately will, adversely affect Internet users.⁸ These proponents call for the enactment of federal regulatory legislation that will mandate ISPs to treat all Internet traffic alike without any form of data discrimination.⁹ Conversely, network neutrality opponents ("opponents") contend that not only is data discrimination necessary, but it is also beneficial to the consumer.¹⁰ These opponents argue that our current regulatory framework will address unfair practices appropriately and any new legislation will only yield more harm than good.¹¹

This article will look past the hysteria and contentious nature of the network neutrality debate and analyze the issue by focusing on the economic and consumer welfare implications resulting from either side's position. Part II of this article will review the invention of the Internet and then proceed to discuss its modern-day relevance and ubiquitous impact on consumers. Part III will introduce the U.S.'s regulatory oversight model of the Internet and conclude by briefly introducing the approaches taken by other, similarly situated, nations. Part IV will focus on the development of the network neutrality debate, its various definitions, and the views held by its advocates and proponents. Part V will subject the network neutrality model to scrutiny by analyzing it

⁶ Christopher S. Yoo, *Network Neutrality and the Economics of Congestion*, 94 GEO. L.J. 1847, 1852 (2006) (suggesting usage-sensitive price as an allocation mechanism).

⁷ See Rivers, *supra* note 4.

⁸ See generally Preserving the Open Internet, Broadband Industry Practices, 74 Fed. Reg. 62,638 (proposed Nov. 30, 2009) (to be codified at 47 C.F.R. pt. 8); Wu, *infra* note 116; Frischmann and Schewick, *infra* note 35; Wu, *supra* note 4.

⁹ See, e.g., Internet Freedom Preservation Act of 2009, H.R. 3458, 111th Cong. (as referred to the H.R. Comm. on Energy and Commerce, July 31, 2009).

¹⁰ See generally Yoo, *supra* note 6; FTC STAFF REPORT, *infra* note 17; Chong, *infra* note 60.

¹¹ See generally Rivers, *supra* note 4; *Rights of Bits*, *supra* note 3; Chong, *infra* note 60.

from a broader consumer perspective. Additionally, Part V will address the adequacy of our current regulatory system and the economic, competitive, legal, and political effects of network neutrality. Finally, Part VI will introduce any future considerations the network neutrality debate may precipitate.

II. The Internet

A fundamental understanding of the history, technological workings, and impact of the Internet is necessary before proceeding; it is this understanding that sets the foundation for the network neutrality debate. Part II is apportioned into two sections; Section A will discuss the invention and technological workings of the Internet and Section B will put into perspective the ubiquitous impact of the modern-day Internet.

A. The Origins of the Internet

The invention of the Internet occurred over four decades ago, on September 2, 1969, in Dr. Leonard Kleinrock's laboratory when a project he and his colleagues had been working on for the U.S. government successfully transmitted data from one computer to another over a 15-foot cable.¹² The government project was funded by the U.S. Department of Defense Advanced Research Projects Agency ("DARPA") to create a military internetwork, known as "ARPANET," with the primary goal of connecting existing local area networks, despite their fundamental technological and architectural differences.¹³ Secondarily, ARPANET had seven other goals.¹⁴ Of its secondary goals, survivability in the

¹² THE ECONOMIST, *supra* note 1.

¹³ See generally David D. Clark, *The Design Philosophy of the DARPA Internet Protocols*, 25(1) COMPUTER COMM. REV., Aug. 1988 at 106 (1988), available at <http://www.cs.princeton.edu/courses/archive/fall04/cos318/docs/p106-clark.pdf>.

¹⁴ ARPANET's secondary goals were, in order of priority:

1. Internet communication must continue despite loss of networks or gateway.
2. The Internet must support multiple types of communications service.
3. The Internet architecture must accommodate a variety of networks.
4. The Internet architecture must permit distributed management of its resources.
5. The Internet architecture must be cost effective.
6. The Internet architecture must permit host attachment with a low level of effort. [And]
7. The resources used in the Internet architecture must be accountable. *Id.* at 107.

face of failure was the most important.¹⁵ Survivability was given priority because DARPA, as a military institution, was concerned with data interruption during wartime.¹⁶ This goal led to various non-linear techniques to permit computers to communicate with each other.¹⁷

By the late 1960s, computer scientists had developed "packet-switching" techniques, allowing computers to communicate with each other over an interrupted network satisfying a very important DARPA goal.¹⁸ Essentially, "packets" are variable-size pieces of data that an originating computer can disassemble and forward, over a network, to a receiving computer where it will be reassembled and processed.¹⁹ Traditionally, circuit-switched networks (i.e. telephone networks) required a discrete connection and a dedicated line of communication for the duration of the transmission to be successful.²⁰ By contrast, packet-switched networks can disassemble larger electronic files into packets, analogous to sending a letter in the mail, and transmit them over an indiscrete or fragmented network.²¹ Like a letter, each packet has "an address on the front, a sequence code on the back, and a chunk of the data inside. . ."²² This method of transmission allows a single file, disassembled into many packets, to take multiple paths before reaching its final destination (even though one packet may take a longer route than the others).²³ This redundancy makes the network extremely robust.²⁴

With a proven method of transmission, computer scientists had to develop a way for local area networks to connect with each other. This internetworking of networks (hence the term "Internet"²⁵) was accomplished with the invention of the Transmission Control Protocol/Internet Protocol ("TCP/IP") software suite.²⁶ This dual-protocol suite independently disassembles and

¹⁵ Clark, *supra* note 13, at 107.

¹⁶ *Id.*

¹⁷ FTC STAFF REPORT, *Broadband Connectivity Competition Policy*, June 2007 at 14, available at <http://www.ftc.gov/reports/broadband/v070000report.pdf>.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.* at 14-15.

²¹ THE ECONOMIST, *supra* note 1.

²² *Id.*

²³ *Id.*; FTC STAFF REPORT, *supra* note 17, at 14-15.

²⁴ THE ECONOMIST, *supra* note 1.

²⁵ *Id.*

²⁶ FTC STAFF REPORT, *supra* note 17, at 15.

reassembles the data packets (TCP component) and transmits the data between sender and recipient computers (IP component).²⁷ Prior to TCP/IP, each network had its own method of transmission, but with the open-source and widely-available universal TCP/IP suite that exists now, different local area networks could now communicate with each other.²⁸

Transmissions between networks utilizing the TCP/IP suite travel between network routers.²⁹ These network routers then use a software algorithm to determine which packets go to which links.³⁰ The sooner the requisite link is free, for any given packet, the sooner it is sent; however, if the requisite link is temporarily being used then it engages in a holding pattern, called "buffering," until it can be sent.³¹ Additionally, if too many packets are simultaneously buffering in a single router's memory, some of them will be dropped and never reach their destination.³²

There are two very critical components of the TCP/IP suite that are at the very core of the network neutrality debate. First, data packets transmitted via TCP/IP move through routers on a "first-in-first-out" principle; and second, the transmission is conducted on a "best-efforts" basis.³³ Fundamentally, this means that there is no prioritization between data packets; therefore, there is no specific guarantee that any one packet will reach its destination.³⁴ In other words, the networks are "dumb," or blind, to what they are transmitting.³⁵

Ultimately, two subsequent breakthroughs led to the revolution of the Internet. First, in 1991, the World Wide Web ("Web") was invented by two scientists at the European Centre for Nuclear Research.³⁶ The Web made navigating the Internet

²⁷ *Id.*

²⁸ THE ECONOMIST, *supra* note 1.

²⁹ FTC STAFF REPORT, *supra* note 17, at 16.

³⁰ *Id.*

³¹ *Id.*

³² *Id.* This result also introduces the concept of scarcity and the need to allocate resources over the amount of data that can be transferred through a given router at a given time.

³³ *Id.*

³⁴ *Id.* at 16-17.

³⁵ Brett M. Frischmann & Barbara van Schewick, *Network Neutrality and the Economics of an Information Superhighway: A Reply to Professor Yoo*, 47 JURIMETRICS J. 383, 385-86 (2007). This concept is often referred to as the "end-to-end" argument. Meaning infrastructure providers are unable to distinguish between the data packets traversing their networks. *Id.*

³⁶ THE ECONOMIST, *supra* note 1.

much simpler and enabled website browsing, links, Web portals, Web addresses, and other user-friendly amenities.³⁷ The second was the recognition that the Internet had massive potentials initiating an infusion of investment in the number of networks and wirelines connecting the individual networks.³⁸ This realization effectively led to the Internet's privatization in 1995.³⁹

B. The Modern Internet

Today, the Internet has evolved from its early stages and is comprised of three types of interconnected networks.⁴⁰ The first category, Backbone Providers, supply long-distance high-speed "connections between a small number of interconnection points."⁴¹ Second, there are Middle-Mile Providers who supply regional distributive functions; for example, a connection from a Backbone Provider to a distant city's central office maintained by an ISP.⁴² Finally, there are Last-Mile Providers who connect Middle-Mile Providers to end users (consumers).⁴³ Although ISPs were historically considered Last-Mile Providers, it is often the case for broadband capable networks that the ISP is both the Last-Mile Provider and the Middle-Mile Provider.⁴⁴ This system of connected networks is most analogous to a road system: Backbones represent *interstate* highways; Middle-Mile networks are the *intrastate* highways; and Last-Mile networks are the local roads that ultimately reach consumers.⁴⁵

The Internet is unfathomably more dynamic and expansive than it was in its earlier days. In 1989, there was only one

³⁷ Transcript of Symposium, *infra* note 127, at 19.

³⁸ Organizations such as the National Science Foundation, Computer Science Researchers, DARPA/ARPANET, and Commercial Internet Exchange began investing in Internet backbone services to expedite the connection of all the various local area networks. FTC STAFF REPORT, *supra* note 17, at 17-18.

³⁹ *Id.* at 18-19.

⁴⁰ The FCC has found it useful to designate Internet providers into three categories. Yoo, *supra* note 6 at 1860.

⁴¹ *Id.* Originally there were only four connection points: San Francisco, Chicago, New York, and Washington, D.C. Now there are more. *Id.* at 1860 n.64.

⁴² *Id.* at 1860.

⁴³ *Id.* at 1861.

⁴⁴ *Id.* at 1861 n.65.

⁴⁵ *Id.* at 1861.

website; by 2006, this number had grown to over 100 million.⁴⁶ Of the world's 1.7 billion Internet users, or 26% of the world's population,⁴⁷ 227 million of them are U.S. citizens.⁴⁸ Of those U.S. Internet users, the average person spends over 66 hours on the Web every month.⁴⁹ To put this number into perspective, Google had over 155 million Internet users, each spending an average of two hours and twenty-four minutes, on its websites in November 2009.⁵⁰ Comparatively, Facebook had 110 million users spending an average of six hours and ten minutes.⁵¹ Perhaps unsurprisingly, the bulk of Internet bandwidth is not used to search the Internet's ever increasing supply of websites, but by users trading music, television shows, full-length movies, and playing online video games.⁵² For example, YouTube "streams more data in three months than all the world's radio stations plus cable and broadcast television channels stream in a year."⁵³ Finally, of the 95 million U.S.-mobile Internet subscribers in 2008, 40 million were active users, accounting for over \$5 billion in total revenue in 2007.⁵⁴ Eighty-two percent of all Apple iPhone users actively access the Internet from their phones.⁵⁵ As smartphones become more popular and cellular networks increase their data capabilities, this number can only be expected to increase.⁵⁶ This perva-

⁴⁶ FTC STAFF REPORT, *supra* note 17, at 19.

⁴⁷ World Stats, *supra* note 2. This number is expected to quadruple by 2013. See *Rights of Bits*, *supra* note 3.

⁴⁸ USA Stats, *supra* note 2. This comprises 74.1% of the U.S. population. Comparatively, 52%, or 418 million Europeans and 19.4%, or 738 million Asians are Internet users. World Stats, *supra* note 2.

⁴⁹ THE NIELSEN CO., *U.S. Web Users Spent Just Over 66 Hours on the Computer in November*, Dec. 14, 2009, [hereinafter *Web Users*] http://blog.nielsen.com/nielsenwire/online_mobile/u-s-web-users-spent-just-over-66-hours-on-the-computer-in-november/.

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² THE ECONOMIST, *supra* note 1.

⁵³ *Id.*

⁵⁴ NIELSEN, *supra* note 5. In July 2006 there were only 22.4 million active mobile U.S. Internet users; thus, in two years this number has almost doubled. *Id.*

⁵⁵ *Id.*

⁵⁶ Preserving the Open Internet, Broadband Industry Practices, 74 Fed. Reg. 62,638, 62,652-53 (proposed Nov. 30, 2009) (to be codified at 47 C.F.R. pt. 8). Since 2004, there have been more mobile telephone subscribers than landline subscribers. Preserving the Open Internet, Broadband Industry Practices, 74 Fed. Reg. at 62,652-53. Some mobile Internet users use their phone as their sole source of Internet access. Preserving the Open Internet, Broadband

sive thirst for more Internet bandwidth has accelerated the network neutrality debate.⁵⁷

III. The Current Internet Regulatory Structure

Internet service providers are subject to the concurrent jurisdiction of the Federal Communications Commission ("FCC"), the Federal Trade Commission ("FTC"), and the Department of Justice ("DOJ").⁵⁸ This section will briefly discuss the jurisdictional authority of the FCC in Section A, FTC in Section B, DOJ in Section C, and conclude with an international comparative approach in Section D. In-depth application and analysis of FCC, FTC, and DOJ oversight will be reserved for Part V of this article *infra*.

A. The Federal Communications Commission

The FCC's regulatory jurisdiction over the Internet is primarily derived from the Communications Act, which in part charges the FCC with "regulating interstate and foreign commerce in communication by wire and radio."⁵⁹ The Communications Act regulates telephone companies under Title II, imposing common-carrier obligations.⁶⁰ Common-carrier status mandates telephone companies to open up their networks on a nondiscriminatory basis.⁶¹ The FCC, however, has refused to apply common-carrier status to Internet companies and instead has classified them as "information services."⁶²

Industry Practices, 74 Fed. Reg. at 62,652-53; see also NIELSEN, *supra* note 5.

⁵⁷ If the demand for bandwidth increases faster than the supply of the bandwidth provided to consumers then necessarily there will have to be data discrimination. Either the network operator will have to allocate its scarce resources according to a price-tier system or the routers will start to allocate resources on their own by dropping data packets altogether. See *supra* Part II.

⁵⁸ FTC STAFF REPORT, *supra* note 17, at 138; Press Release, Deborah Majoras, FTC Chairman, *FTC Chairman Addresses Issue of "Net Neutrality"* (Aug. 21, 2006), available at <http://www.ftc.gov/opa/2006/08/neutrality.shtm>.

⁵⁹ Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, 20 F.C.C.R. 14,986, 14,987 (Policy Statement) [hereinafter Wireline] (quoting 47 U.S.C. § 151).

⁶⁰ Rachelle B. Chong, *The 31 Flavors of Net Neutrality: A Policymaker's View*, 12 INTELL. PROP. L. BULL. 147, 149 (2008).

⁶¹ *Id.* This is because, historically, telephone networks were monopolies and it proved both costly and wasteful to run more than one telephone line to a single consumer. *Id.*

⁶² *Id.* As shown in the next paragraph this is consistent with Congress' in-

Congress has stated that “it is the policy of the United States ‘to preserve the vibrant and competitive free market that presently exists for the Internet’ and ‘to promote the continued development of the Internet.’”⁶³ Further, Congress, when adopting the Telecommunications Act of 1996,⁶⁴ directed the FCC to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability [broadband Internet] to all Americans.”⁶⁵

Pursuant to Congress’ Internet policy, the FCC, under its Title I ancillary jurisdiction,⁶⁶ has adopted four guiding Internet principles to ensure broadband networks are widely deployed, open, affordable, and accessible to all consumers.⁶⁷

[1] *To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet*, consumers are entitled to access the lawful Internet content of their choice . . . [2] [C]onsumers are entitled to run applications and use services of their choice, subject to the needs of law enforcement. . . [3] [C]onsumers are entitled to connect their choice of legal devices that do not harm the network. . . [And 4] [C]onsumers are entitled to competition among network providers, application and service providers, and content providers.⁶⁸

The FCC’s expansive role was subsequently challenged and affirmed by the U.S. Supreme Court in its *Brand X*⁶⁹ decision.⁷⁰

tent. *Id.* at 150.

⁶³ Wireline, *supra* note 59, at 14,987 (quoting 47 U.S.C. § 230 (b)(1) and 47 U.S.C. § 230(b)(2)).

⁶⁴ Telecommunications Act of 1996, Pub. Law No. 104-104, 110 Stat. 56 (1996)).

⁶⁵ 47 U.S.C. § 157 note.

⁶⁶ “The Commission however, ‘has jurisdiction to impose additional regulatory obligations under its Title I ancillary jurisdiction to regulate interstate and foreign communications.’” Wireline, *supra* note 59, at 14,987-88 (quoting *NCTA v. Brand X*, slip op. at 3-4).

⁶⁷ *Id.* at 14,988.

⁶⁸ *Id.* (emphasis in original).

⁶⁹ *National Cable & Telecomms. Ass’n v. Brand X Internet Services*, 545 U.S. 967, 996 (2005).

⁷⁰ Broadband Industry Practices, 23 F.C.C.R. 13028, ¶13 n.47 (order) (“The Commission, under Title I of the Communications Act, has the ability to

Thus, the FCC, exercising its Title I ancillary jurisdiction over the past few years, has successfully unified the regulatory status of wireline, cable, powerline, and wireless broadband Internet services.⁷¹

B. The Federal Trade Commission

The FTC's Internet regulatory oversight is derived primarily from the FTC Act⁷² and gives the Commission jurisdiction over matters of consumer protection and competition.⁷³ "Under the FTC Act, '[u]nfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce,' are prohibited."⁷⁴ An unfair act is one that "causes or is likely to cause substantial injury to consumers which is not reasonably avoidable by consumers themselves and not outweighed by countervailing benefits to consumers or to competition."⁷⁵ It should be noted that had ISPs been classified as common carriers, the FTC would be precluded from exercising its jurisdiction over their operations.⁷⁶

Finally, the FTC itself has announced that it is a commanding Internet regulator.⁷⁷ More specifically, the FTC considers itself to have "both authority and experience in the enforcement of competition and consumer protection law provisions pertinent to broadband Internet access," the flexibility from the Act's intentional ambiguities to dynamically regulate diverse markets, and the investigative and enforcement wherewithal to appropriately address "party- and market-specific" operations.⁷⁸

C. The Department of Justice

Like the FTC, the DOJ can regulate the Internet through the use of a proxy – existing antitrust laws.⁷⁹ Although antitrust

adopt and enforce the net neutrality principles it announced in the *Internet Policy Statement*"), available at <http://cyberlaw.stanford.edu/system/files/FccComcastOrder.pdf>.

⁷¹ FTC STAFF REPORT, *supra* note 17, at 47.

⁷² 15 U.S.C. §§ 41-58.

⁷³ FTC STAFF REPORT, *supra* note 17, at 38.

⁷⁴ *Id.*

⁷⁵ 15 U.S.C. § 45(n).

⁷⁶ FTC STAFF REPORT, *supra* note 17, at 38.

⁷⁷ *Id.* at 41.

⁷⁸ *Id.*

⁷⁹ *Id.* at 37 n.154. See also The Sherman Act 15 U.S.C. §§ 1-7 and The

laws can be enforced *ex post*, the DOJ has been active in addressing *ex ante* anticompetitive issues by investigating Internet company mergers. For example, the DOJ investigated the AT&T and BellSouth merger by exploring whether its consummation would allow the company to favor its own content over that of its rivals (ultimately finding that it did not).⁸⁰ Similarly, the DOJ successfully sought from AT&T and SBC, prior to merging, the divestiture of certain assets as preconditions for the agency's approval.⁸¹

D. Regulation Outside the United States

Although largely outside the scope of this article, a short overview of how some other countries have adopted Internet regulations may serve useful to the reader's perspective. South Korea, often cited as the most "wired" country in the world, privatized its Internet giant, Korea Telecom, in the early 1990s and has pushed for public-private partnerships in funding national projects.⁸² Initially, South Korea saw the emergence of multiple ISPs before they began converging ultimately requiring government price controls.⁸³ Like South Korea, Japan privatized its historic telecommunications monopoly and started focusing on *ex post* regulation rather than the *ex ante* regulation it was implementing via licenses and approval.⁸⁴ Alternatively, German ISPs have actually implemented several varying pricing plans, such as: pay-per-minute, pay-per-bandwidth, and flat-rate.⁸⁵ Finally, the Netherlands, Europe's leader in broadband penetration, has largely deregulated its Internet industry but still provides the industry with subsidies and tax breaks to further promote telecommunications infrastructure.⁸⁶

IV. A Network Neutrality Introduction

This part of the article introduces the nuts and bolts of what network neutrality proponents identify as the central issue. Section A will briefly provide the backdrop from which network

Clayton Antitrust Act 15 U.S.C. §§ 12-27, 29 U.S.C. §§ 52-53.

⁸⁰ FTC STAFF REPORT, *supra* note 17, at 49 n.219.

⁸¹ *Id.* at 48 n.218.

⁸² *Id.* at 113.

⁸³ *Id.* at 114.

⁸⁴ *Id.* at 115, n.553.

⁸⁵ Frischmann & Schewick, *supra* note 35, at 396.

⁸⁶ FTC STAFF REPORT, *supra* note 17, at 117-18.

neutrality proponents contend the need for reform, and Section B will attempt to identify the many types of behavior deemed not neutral, and argued to be prohibited, by proponents.

A. Origin of the Concern

Network neutrality advocates first began to aggressively advance their call for national neutral-Internet legislation when, in February and March of 2002, the FCC classified Digital Subscriber Lines ("DSL") and cable modem systems as "information systems."⁸⁷ This classification allowed broadband ISPs to foreclose their proprietary networks to competitors.⁸⁸ Consequently, some ISPs began charging tiered pricing models to require heavy bandwidth users to pay more for their network connection.⁸⁹ Others began limiting connection speeds of users running bandwidth-intensive programs.⁹⁰ Some ISPs imposed restrictions that prohibited "end users [from] reselling bandwidth. . . engaging in home networking, attaching certain devices, operating file servers, and employing commercial applications such as virtual private networks."⁹¹

With the potential for ISPs to manipulate their networks in unprecedented ways and the Internet user's unsatiated appetite for more bandwidth, many companies fear that they inevitably will bear some sort of loss as bandwidth is managed and congestion is allocated accordingly. In fact, companies such as Google,⁹² Disney, Amazon.com, eBay, Yahoo!, Microsoft, Apple Computer, and Dell have formed several industry consortia to protest and combat what they perceive as newly found ISP power.⁹³ It was not long before legal scholars started engaging in the debate, publishing scholarly articles for and against a federal law that would mandate Internet-neutral ideals, such as the FCC's four network neutral principles discussed in Part III.A. *supra*.

⁸⁷ Yoo, *supra* note 6, at 1856; *see also* Frischmann and Schewick, *supra* note 35, at 387.

⁸⁸ *See supra* Part III.A.

⁸⁹ Yoo, *supra* note 6, at 1856.

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² Jessica E. Vascellaro, *Google to Test Ultra-Fast Broadband*, THE WALL ST. J., Feb. 11, 2010, <http://online.wsj.com/article/SB30001424052748704140104575057273487119574.html>.

⁹³ Yoo, *supra* note 6, at 1857.

B. Defining Non-Neutral Behavior

Network neutrality proponents come in all shapes and sizes, but most of them can agree on a limited set of principles that they aggressively advocate as necessary for the continuation of a “free” Internet. It should be noted that proponents and opponents are not always clear on whether their concerns are applicable to the national ISP market, regional markets only, or both.⁹⁴ Generally, network neutrality proponents convey concern over: (1) Internet degradation, prioritization, and blockage of content and applications; (2) price discrimination (“tiering”); (3) ISPs vertically integrating with content and application providers; (4) effects on innovation by content and application providers; (5) diminution of Last-Mile ISPs; (6) lack of Internet regulatory oversight; and (7) diminution of free expression.⁹⁵

First, data degradation, prioritization, and blockage are thought to be inevitable without neutrality rules.⁹⁶ Proponents are concerned that ISPs will use data discrimination technologies to restrict their subscribers from rival content instead of offering unfettered access to the entire Internet.⁹⁷ They fear that this kind of behavior will lead to Internet balkanization.⁹⁸ The end result might resemble an Internet analogous to contemporary cable-television service where you are given access to a standard set of channels, but must pay to receive premium content.⁹⁹ For example, in 2005, a small ISP, Madison River Telephone Company, was investigated by the FCC for allegedly blocking from its customers a rival voice over Internet protocol (“VoIP”) company in favor of its own.¹⁰⁰ Madison River and the FCC reached a consent decree stating it would not block its data ports to VoIP providers and would pay a fine to the U.S. Treasury for its actions.¹⁰¹

Second, proponents are fearful that ISPs will invoke price tiering arrangements that limit bandwidth relative to the price

⁹⁴ Frischmann & Schewick, *supra* note 35, at 419 (Authors confront a network neutrality opponent for focusing on the national market rather than, what they think is the relevant market, the local market).

⁹⁵ FTC STAFF REPORT, *supra* note 17, at 52; Yoo, *supra* note 6, at 1883-85.

⁹⁶ FTC STAFF REPORT, *supra* note 17, at 52.

⁹⁷ *Id.*

⁹⁸ *Id.* at 52, 79.

⁹⁹ *Id.* at 52.

¹⁰⁰ Chong, *supra* note 60, at 152; See *In re Madison River Commc'ns*, 20 F.C.C.R. 4295 (2005).

¹⁰¹ Chong, *supra* note 60, at 152.

the customer is willing to pay for the service.¹⁰² These proponents argue that if ISPs are allowed to charge more money for service agreements that guarantee more bandwidth, then this will necessarily create “fast lanes” for wealthy consumers and slow lanes for the common consumer.¹⁰³ Ostensibly, they argue, this appears satisfactory; but proponents nevertheless fear that by limiting bandwidth to the common consumer it will prevent these consumers from accessing and utilizing bandwidth-intensive applications and content – thereby reducing those companies’ profits and thus, incentives to innovate.¹⁰⁴ Alternatively, other proponents fear that ISPs will charge program and content providers tiered pricing in exchange for more bandwidth.¹⁰⁵ In sum, these proponents object to any “deviation from the long-standing first-in-first-out and best-efforts transmission characteristics of the Internet.”¹⁰⁶ This in turn, the argument goes, would prohibit bandwidth-intensive-startup companies from gaining access to potential customers if they could not afford to foot the bill.¹⁰⁷

Third, vertical integration – where a company merges or expands its operations into its supply or distributive markets – has also recently concerned many neutrality proponents.¹⁰⁸ These neutrality proponents fear that once – or if – ISPs expand operations into content and application industries they will then have the incentive to prioritize their own data packets at the expense of others,¹⁰⁹ thereby allowing them to charge monopoly prices.¹¹⁰ Consequently, some proponents seek an outright ban on ISPs from vertically integrating.¹¹¹

Fourth, proponents are concerned about the effects a non-neutral Internet would have on innovation.¹¹² These proponents desire to increase incentives for independent companies to innovate by prohibiting restrictions.¹¹³ To illustrate, they fear “the

¹⁰² See FTC STAFF REPORT, *supra* note 17, at 54.

¹⁰³ Chong, *supra* note 60, at 154.

¹⁰⁴ Frischmann & Schewick, *supra* note 35, at 404.

¹⁰⁵ FTC STAFF REPORT, *supra* note 17, at 54.

¹⁰⁶ *Id.*

¹⁰⁷ See Yoo, *supra* note 6 at, 1881.

¹⁰⁸ FTC STAFF REPORT, *supra* note 17, at 57.

¹⁰⁹ *Id.*

¹¹⁰ Frischmann & Schewick, *supra* note 35, at 411. For a detailed explanation of the potential economic effects of vertical integration by ISPs *see id.* at 410-16.

¹¹¹ FTC STAFF REPORT, *supra* note 17, at 57.

¹¹² *Id.*

¹¹³ Frischmann & Schewick, *supra* note 35, at 419.

complexity and cost that content and application providers would experience if they had to negotiate deals with numerous network operators worldwide” would be prohibitive.¹¹⁴ Similarly, they are concerned that spontaneous innovators, nonprofits, and educational entities might be prevented from fully capitalizing their business absent potentially preclusive negotiations with an established network operator.¹¹⁵ From a macroeconomic standpoint, restricting innovation is alleged to significantly reduce economic growth.¹¹⁶

Fifth, proponents express concern over the access the average consumer will have to choose between ISP companies.¹¹⁷ Generally, the argument assumes that most Internet consumers have access only to two broadband-ISP companies – the local cable and phone companies.¹¹⁸ It next assumes that emerging technologies such as wireless or powerline ISPs, will not, in the near future, be able to compete with the cable or phone companies.¹¹⁹ The argument then focuses on inadequate competition, alternatives, and disclosure that would result from a de facto duopoly in the local ISP market and attempts to prevent this from occurring in the Last-Mile Provider market.¹²⁰

Sixth, neutrality proponents argue the current regulatory framework is insufficient to effectively engage their concerns.¹²¹ Proponents are not convinced the FCC’s Title I authority or the antitrust and consumer protection authorities under the FTC and DOJ are capable of preventing their concerns from materializing.¹²² This is the primary thrust proponents use to rally supporters into adopting federal legislation to mandate their version of a “neutral” Internet.¹²³

¹¹⁴ FTC STAFF REPORT, *supra* note 17, at 57.

¹¹⁵ *Id.* at 58.

¹¹⁶ Frischmann & Schewick, *supra* note 35, at 424; Tim Wu, Testimony Draft, *The Installation and Use of Filtering Software on Public Networks Contradicts U.S. Policy*, available at http://www.fcc.gov/broadband_network_management/022508/wu.pdf. Of course, the fear that economic growth will be stifled disappears if the Internet remains “neutral.”

¹¹⁷ FTC STAFF REPORT, *supra* note 17, at 58.

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ *See Id.* 58-59.

¹²¹ *Id.* at 59.

¹²² *Id.*; *See Part III supra.*

¹²³ *See, e.g.,* Internet Freedom Preservation Act of 2009, H.R. 3458, 111th Cong. (as referred to the H.R. Comm. on Energy and Commerce, July 31, 2009).

Seventh, proponents are concerned that if ISPs have the ability to filter their traffic, or data packets, then they may prevent content on their network that runs counter to their objectives.¹²⁴ Although analogous to any other type of content restriction, this argument invokes the First Amendment as a legal prohibition from choking political discourse.¹²⁵ In sum, this is an additional reason, proponents contend, to prevent ISPs from restricting content on their networks.

Finally, it should be noted that other network neutrality proponents seek legislation to prohibit restrictions by ISP companies: from consumers reselling bandwidth; on home networking; on attaching devices; and operating file servers.¹²⁶ Underlying this argument is that once a consumer purchases an Internet connection from an ISP they have the right to dispose of it, and utilize it, any way they see fit as long as it is not illegal, detrimental to other users, or detrimental to the network's infrastructure.

V. Network Neutrality Scrutinized

In order to properly analyze the arguments that network neutrality proponents advocate, it is useful to analyze their claims by focusing on assessments consumers should be most concerned with. Section A will evaluate network neutrality from a consumer-centric welfare approach. Section B will evaluate network neutrality from an economic and regulatory view. Lastly, Section C will address any potential legal hurdles and the political feasibility of implementing a national network neutrality law.

A. Consumer Welfare Analysis

Consumer welfare can be vague and the term necessarily generalizes in order to encompass a larger base. For purposes of this article, consumer welfare will merely analyze whether the consumer is better or worse off after the proposed rule, regulation, or deviation from the status quo is adopted and implemented.

First, an ISP's network value is directly related to the amount of consumers and companies subscribing to it or conducting business over it.¹²⁷ Thus, ISPs already have a built-in incen-

¹²⁴ FTC STAFF REPORT, *supra* note 17, at 59-60.

¹²⁵ *See Id.* at 60 n.268.

¹²⁶ *See Yoo, supra* note 6, at 1876-79.

¹²⁷ Transcript of Symposium at 10, THE PROGRESS FREEDOM

tive to make pro-consumer choices and to refrain from alienating current and potential customers.¹²⁸ Second, contrary to what network neutrality proponents care to admit, the Internet is and always has been inherently discriminatory.¹²⁹ Due to Internet congestion, data packets are routinely queued, buffered, dropped, or rerouted as they traverse multiple networks from their originating location to their destination location.¹³⁰

In fact, this is the reason large Internet content and application companies set up multiple server locations called “content delivery networks” to duplicate their data (despite their redundancy, they ensure their data packets arrive quicker and with fewer errors).¹³¹ Content delivery networks violate, at their core, the principles of network neutrality.¹³² They essentially game the system to favor their data packets over others. Some proponents would actually favor the elimination of content delivery networks because they violate the “dumb” network routers of twenty years ago.¹³³ This behavior seems to stifle innovation more than protect it. Would consumers really want to wait longer, with a higher probability of error, for the content they seek to access over the Internet because large commercial Internet entities are willing to pay more for a content delivery network?

Similarly, forbidding price tiering arrangements would only harm the consumer. By allowing private parties to contract –

FOUNDATION, *Net Neutrality or Net Neutering: Should Broadband Internet Services Be Regulated?*, (Oct. 2006), http://www.pff.org/issues-pubs/pops/pop13.26_net_neutrality_transcript.pdf. Some economists consider the Internet a “club good.” This means that although its value increases with membership, there is a limit to this value as membership surpasses equilibrium. Yoo, *supra* note 6, at 1864. This can be illustrated by realizing that the Internet is more useful relative to the more users accessing it. However, too many users will actually start to create a degrading negative externality on other users in the form of a slower connection. *Id.*

¹²⁸ Transcript of Symposium, *supra* note 127, at 10; Chong, *supra* note 60, at 152.

¹²⁹ FTC STAFF REPORT, *supra* note 17, at 61.

¹³⁰ *Id.*; Yoo, *supra* note 6, at 1862. Additionally, “beneficial practices, such as backbone peering, content delivery networks like Akamai, network-based spam filtering, and blocking websites known to be the source of viruses, attest to the extent to which the Internet is already far from ‘neutral’.” Yoo, *supra* note 6, at 1854.

¹³¹ *Id.* at 1881-82. The leading content delivery network, Akamai, maintains more than 14,000 servers and handles more than 15% of the world’s Internet content. *Id.* at 1882.

¹³² *Id.*

¹³³ *Id.* at 1883.

whether they are an Internet content/application provider or a consumer – for the range of bandwidth they want (or as a metered approach) will increase the number of people able to benefit from the network's services.¹³⁴ Not only should these private contracts be condoned but they should be encouraged. An ISP that has several price tiering plans may be able to profitably allow a discounted plan below what a flat rate ISP could provide by making up the difference on their high usage customers.¹³⁵ As one California Public Utilities Commissioner advanced when addressing premium service fees:

[T]his argument has baffled me. Some people are perfectly fine with mailing a letter for 41 cents with the U.S. Post Office and having it arrive two to three days later. Other folks are in a rush and need to get their letter their faster. So they are willing to pay \$12 to get their letters their overnight. . . Different users have different needs, and the market should be free to serve all needs.¹³⁶

Additionally, a ban on price tiering would reduce consumer welfare because it would discourage upstart content providers from "developing real-time applications by virtue of the uncertainty over their ability to contract for priority with access providers."¹³⁷ For example, if a medical provider wanted to provide real-time-out-patient monitoring over the Internet they would be unlikely to do so unless they could guarantee their monitoring services would be allocated sufficient bandwidth to adequately and properly care for their patients. Thus, any business that must operate with a certain level of bandwidth would necessarily be violating network neutrality principles and be precluded from the market.

Data prioritization, blockage, and management can actually increase consumer welfare. Not all data packets should be

¹³⁴ *Id.* at 1885.

¹³⁵ *Id.*

¹³⁶ Chong, *supra* note 60, at 154. *See also* FTC STAFF REPORT, *supra* note 17, at 64 (Other analogous examples include: first-class versus coach airline tickets, private versus public transportation, and premium advertising locations).

¹³⁷ F. Gregory Sidak, *A Consumer-Welfare Approach to Network Neutrality Regulation of the Internet*, 2(3) J. OF COMPETITION L. AND ECONOMICS 349, 355 (2006).

treated equally. Data packets that rely on reaching their destination at concurrent or sequential times should be given preference to those that are not operating under similar time constraints.¹³⁸ To illustrate, voice and video streaming data packets should be given preference to email and webpage data packets because the former are sensitive to jitter and latency issues that can severely decrease their quality and applicability.¹³⁹ Network neutrality would require both types of data packets to be transmitted on a first-in-first-out and best-efforts basis, but ISPs should be allowed to identify, in the face of congestion, those that can afford to buffer from those that cannot. This type of network management will actually enhance consumer welfare.

Network management is crucial to the proper functioning of networks and it may be forbidden if certain neutrality proponents get their way. The FCC has recognized that network management is important by stating that its broadband principles are "subject to reasonable network management."¹⁴⁰ One way in which ISPs manage their network, while simultaneously increasing consumer welfare, is by blocking viruses, spam, intentional congestion, and reserving portions of bandwidth to resolve performance issues.¹⁴¹ Carried to its logical conclusion, proponents seek to forbid ISPs from eliminating viruses from their networks because it would require them to filter the data packets traversing its infrastructure. Admittedly, this is unlikely to happen, but what kind of definition will the ISP adopt when searching for, and eliminating, viruses, spam, and unwanted advertisements and will it violate neutrality rules favored by proponents?

Moreover, it has been predicted that if YouTube becomes a high-definition video player then it, by itself, will double the capacity needs of the Internet.¹⁴² To be clear, in an effort to maintain customers and to attract new ones, ISPs already have adequate incentives to increase the capacity of their networks, but inevitably the capacity demanded by consumers and the infrastructure necessary to achieve that capacity does not appear instantaneously; thus, ISPs must make decisions on how to best manage their networks during processes of expansion.¹⁴³

¹³⁸ FTC STAFF REPORT, *supra* note 17, at 64.

¹³⁹ *Id.* at 62.

¹⁴⁰ Chong, *supra* note 60, at 153.

¹⁴¹ *Id.* at 153-54.

¹⁴² FTC STAFF REPORT, *supra* note 17, at 86.

¹⁴³ *See Id.* at 86-88.

B. Regulatory, Economic, and Competitive Effects

If existing regulations are insufficient to govern the Internet without adversely affecting innovation, competition, and consumer welfare then it begs the question: "How did the Internet become a colossal success story?"¹⁴⁴ Quite simply, the answer is the free market structure and government regulation forbearance worked.¹⁴⁵ There is no lack of Internet content and applications; as of 2006, there were upwards of 1,400 broadband providers in the U.S. alone, providing Internet access via cable modems, DSL, fiber-optic, and wireless to over 80% of all residents.¹⁴⁶ These facts are opponents' best argument. They contend that network operators "should be allowed to innovate freely and differentiate their networks as a form of competition that will lead to enhanced service offerings for content and applications providers and other end users."¹⁴⁷ The idea is simple, if ISPs want to test out different data transmission methods with a variety of business plans, they should be allowed to do so and "if such experiments turn out to be a failure, network operators will learn from their mistakes and improve their offerings or simply return to the status quo."¹⁴⁸

¹⁴⁴ Rachelle Chong, a commissioner of the California Public Utilities Commission, has answered this question by stating: "let's remember that a free market structure has promoted the growth of the Internet. The Internet is a tremendous success story. The government has used forbearance in regulating the Internet, and it has worked." Chong, *supra* note 60, at 155. Indeed, Gregory Sidak, a visiting professor of law at Georgetown University Law Center, criticized network neutrality proponents' lack of recognition of the Internet's success when he wrote: "Given what is at stake in terms of consumer welfare, the arguments offered in favor of network neutrality regulation have, to date, exhibited a staggering lack of economic rigor." Sidak, *supra* note 137, at 352.

¹⁴⁵ Chong, *supra* note 60, at 155.

¹⁴⁶ *Id.* See also Sidak, *supra* note 137, at 473. Additionally, Internet Backbone providers remain competitive to this day due to large customers purchasing service from several ISPs to ensure that if any one of them changes their subscription to unfavorable terms they can quickly substitute them for another service provider. Nicholas Economides, *The Economics of the Internet Backbone*, in *THE ECONOMICS OF THE INTERNET* 375, 384 (2d ed. 2007), available at http://www.stern.nyu.edu/networks/Economides_ECONOMICS_OF_THE_INTERNET_BACKBONE.pdf.

¹⁴⁷ FTC STAFF REPORT, *supra* note 17, 65.

¹⁴⁸ *Id.* Gregory Sidak, a visiting professor of law at Georgetown University Law Center, has summed up the markets historic approach to the Internet by stating:

[D]eregulation was the catalyst for substantial innovation with-

Moreover, fostering innovation will allow smaller companies to compete with the incumbent mega ISPs.¹⁴⁹ Smaller companies rely on market differentiation to attract customers, despite the expansive economies of scale by the larger ISPs.¹⁵⁰ These smaller ISPs survive by offering products specifically tailored for smaller subsegments of the overall market analogous to the survivability of a neighborhood boutique store when a Wal-Mart is within the same community.¹⁵¹ Additionally, the increase in competition by smaller ISPs will only increase the quality of services offered by the mega ISP wishing to expand its customer base.¹⁵² Network neutrality laws would prohibit this amelioration and innovation from ever taking place. Proponents often seem to forget that it was the competitive free market that created the Internet in the first place.

To be fair, not every ISP has attempted only pro-competitive and consumer-welfare-enhancing business innovations. There are two examples that network neutrality proponents often point to and say, "See, I told you so!"¹⁵³ The first case was in 2005 and involved a small local telephone company, Madison River Communications, which blocked its DSL customers from using a commonly known rival VoIP, Vonage.¹⁵⁴ However, the FCC acted swiftly and reached a Consent Decree with Madison River imposing a small "voluntary" payment to the U.S. Treasury and a release from blocking its ports.¹⁵⁵ The second case was in 2008 and involved the second largest ISP, Comcast, when it be-

in the network, leading to improvements in investment, broadband penetration, broadband pricing, and broadband deployment. The deregulatory environment has also fostered innovation at the edges of the network, resulting in increased investment, applications, and subscribership. Given the amount of innovation within the network and at the edges of the network, it seems improbable that the current deregulatory regime has produced a socially suboptimal level of innovation. Yet even if one assumes, counterfactually, that the actual amount of innovation is less than socially optimal, it is doubtful that telecommunications law would be the most efficacious instrument to address the alleged market failure. Sidak, *supra* note 137, at 354.

¹⁴⁹ Yoo, *supra* note 6, at 1904.

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² *Id.*

¹⁵³ Sidak, *supra* note 137, at 415.

¹⁵⁴ Yoo, *supra* note 6, at 1857.

¹⁵⁵ See Madison River Comm., LLC, Order, 20 F.C.C.R. 4295 (2005).

gan choking the bandwidth used by bandwidth-intensive peer-to-peer applications.¹⁵⁶ Again, the FCC acted by ordering Comcast to cease and desist its data choking practices.¹⁵⁷ The take-away lesson from these two cases is not that ISPs are incentivized to engage in discriminatory practices, but that when an ISP experiments with data management that ultimately discriminates and harms consumers, our current regulatory regime will quickly act to remedy the situation. Contrary to what proponents advocate, these cases do not corroborate their stance but instead reinforce the belief that no further regulatory intrusion is required.

Finally, an outright prohibition on vertical integration will decrease consumer welfare.¹⁵⁸ First, preventing ISPs from vertically integrating with content and application providers will prevent them from realizing economies of scope which, under a competitive model, will increase their costs and prevent the ISP from transferring its savings onto its consumer.¹⁵⁹ Second, this kind of outright prohibition would also preclude ISPs from alternative sources of revenue, namely advertising, which would be passed onto the consumer.¹⁶⁰ Further, a ban on vertical integration would "increase transaction costs and shield incumbent providers of content and applications from entry by network operators."¹⁶¹ In other words, content and application markets would face less competition resulting in fewer viable substitutes of their products allowing them to increase their prices and profit to the detriment of consumers.¹⁶² If this result seems paradoxical to what neutrality proponents claim they are advocating, that is because it is.

Again, to be fair, not every single vertically integrated merger, partnership, or cooperation is going to yield pro consumer results.¹⁶³ In recognition of this we have the federal antitrust laws enforced by the FTC and the DOJ. The FTC has stated: "In conducting an antitrust analysis, the ultimate issue would be

¹⁵⁶ See Broadband Industry Practices, *supra* note 70.

¹⁵⁷ *Id.* at ¶¶ 54-55.

¹⁵⁸ Sidak, *supra* note 137, at 356.

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ *Id.* at 459.

¹⁶² Originally the antitrust laws were skeptical of the consumer welfare benefits of vertical integration, but began to slowly realize that its atomistic vision of competition was actually increasing prices. Yoo, *supra* note 6, at 1886.

¹⁶³ FTC STAFF REPORT, *supra* note 17, at 125.

whether broadband Internet access providers engage in unilateral or joint conduct that is likely to harm competition and consumers in a relevant market.”¹⁶⁴ The FTC and DOJ regulate the Internet no differently than any other industry – *ex ante* regulation in the merger context and *ex post* investigation and prosecution of anti-competitive practices.¹⁶⁵ That is to say:

Conduct that has the potential to be both anticompetitive and harmful to consumers, under certain conditions, and procompetitive and capable of improving efficiency, under other conditions, is analyzed under the ‘rule of reason’ to determine the net effect of such conduct on consumer welfare. In contrast, conduct that is always or almost always harmful to consumers. . . generally is deemed per se illegal under the antitrust laws.¹⁶⁶

The net effect is simple, the FTC and DOJ will vigorously analyze ISP mergers, unilateral conduct, and agreements on a case-by-case basis to ensure consumer welfare is not harmed by vertical integration, horizontal integration, or otherwise.¹⁶⁷ For example, when AOL¹⁶⁸ and Time Warner¹⁶⁹ merged, many feared it would reduce AOL’s incentive to offer DSL broadband service as a cheaper alternative to cable.¹⁷⁰ The FTC acted by negotiating a consent order, requiring the merged company to open up its cable system to competitor ISPs and banned it from interfering with their use of its lines.¹⁷¹

In addition to antitrust regulation, the FTC regulates consumer protection laws by prohibiting “entities from engaging in

¹⁶⁴ *Id.* at 120. “The antitrust laws are grounded in the principle that competition . . . serves to protect consumer welfare. This persistent focus on the consumer ensures that enforcement resources are directed at protecting consumers through the competitive process, not at protecting individual market players.” *Id.*

¹⁶⁵ *Id.* at 121.

¹⁶⁶ *Id.*

¹⁶⁷ *Id.* at 121-22. “[A]ntitrust jurisprudence generally regards vertical integration as harmless or beneficial to consumer welfare.” *Id.* at 125.

¹⁶⁸ At the time, AOL was the nation’s largest ISP. *Id.* at 126.

¹⁶⁹ At the time, Time Warner served approximately 20% of U.S. cable households. *Id.*

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

unfair or deceptive acts or practices in interstate commerce."¹⁷² Relating the FTC's consumer protection laws to ISPs, two issues become prominent: (1) disclosure of material terms; and (2) privacy related issues.¹⁷³ The FTC maintains any term that is "likely to affect [consumers'] choice of, or conduct regarding a product" is material and enforceable.¹⁷⁴ At the same time, the FTC requires companies "to provide the privacy and security protections they advertise and has brought approximately a dozen cases alleging that failure. . . in violation of Section 5 of the FTC Act."¹⁷⁵

The resounding message, by this point, should be clear: not only have network neutrality proponents failed to examine the economic and consumer welfare consequences of their proposed legislation, but they also have failed to adequately account for the protective measures currently offered by the regulatory authorities already in place. These material mistakes are compounded by proponents' continued failure to account for emerging Internet technologies, such as, wireless, fiber optic, and powerline ISPs to directly compete with incumbent ISPs. Proponents wrongfully argue as though the ISP industry is static and unable to adapt to market influences. Simply viewing the progress of the Internet over the last forty years alone is enough to rebut this proposition and raise serious doubts about the assumptions proponents premise their arguments upon.

C. Legal Hurdles and Political Feasibility

Disregarding the alleged anticompetitive and consumer-welfare-decreasing aspects of network neutrality, proposed legislation may face significant legal and political hurdles. Opponents have raised the issue of whether neutrality legislation may misuse the First Amendment right to free speech and violate the Fifth Amendment right to have your property seized by the govern-

¹⁷² *Id.* at 129. The FTC has defined prohibited acts: "[An] act or practice is deceptive if it involves a representation, omission, or practice that is likely to mislead consumers acting reasonably under the circumstances, and the representation, omission, or practice is material." *Id.* Additionally, the FTC has defined unfair practices as those that cause injury to consumers that "(1) is substantial; (2) is not outweighed by countervailing benefits to consumers and competition; and (3) consumers themselves could not reasonably have avoided." *Id.*

¹⁷³ *Id.* at 130.

¹⁷⁴ *Id.* at 131.

¹⁷⁵ *Id.* at 134-35.

ment without due process of law.¹⁷⁶ Neutrality proponents argue that a non-neutral Internet could prohibit political discourse and violate the First Amendment, but the first Amendment only “protects the right to express one’s viewpoint, but it does not entitle one to use media of communications . . . for free.”¹⁷⁷ Carried to its logical conclusion, network neutrality would prohibit network managers from filtering out spam, unsolicited pop-up advertisements, or viruses as a violation of the First Amendment. Furthermore, ISPs have invested enormous amounts of capital to create their infrastructure and, as a consequence, own it and should be allowed to reasonably dispose of their property how they see fit.¹⁷⁸ Restricting ISPs from managing their proprietary networks may constitute a taking, invoking the Fifth Amendment and necessitate just compensation.¹⁷⁹ As already stated, the goal ought to be to encourage, not discourage, innovation and competition in Internet industries. The message here is that enacting *ex ante* legislation to mandate neutral networks might have severe unintended and unforeseen consequences. Not to mention the legislation may be totally unnecessary.

Remember, the current regulatory framework has not been shown to be inadequate. This is precisely the reason that passing a federal statute mandating network neutral ideals may not be politically feasible. As of June 2007, there have been over twenty hearings in the Senate Commerce, Science, and Transportation Committee and six in the House Committee on Energy and Commerce over network neutrality.¹⁸⁰ In fact, network neutrality is credited with preventing comprehensive telecom reform from being enacted in the 109th Congress.¹⁸¹ Similarly, the 110th Congress considered network neutral legislation but ultimately did not pass anything.¹⁸²

VI. Future Considerations

If there is one thing that remains certain when addressing the network neutrality debate it is its resilience to abscond any-

¹⁷⁶ Transcript of Symposium, *supra* note 127, at 6.

¹⁷⁷ Sidak, *supra* note 137, at 438.

¹⁷⁸ How ISPs manage and manipulate their networks remains subject to all applicable laws and the jurisdiction of the FCC, FTC, and DOJ.

¹⁷⁹ See Sidak, *supra* note 137, at 375-77, 376 n.89.

¹⁸⁰ FTC STAFF REPORT, *supra* note 17, at 145 n.730.

¹⁸¹ *Id.* at 146-47.

¹⁸² *Id.*

time soon. On July 31, 2009, Representative Markey of Massachusetts introduced H.R. 3458 into the 111th Congress which was then referred to the Committee on Energy and Commerce.¹⁸³ H.R. 3458, amongst many other network neutral ideals, would prohibit ISPs from: blocking or interfering with any lawful content or application; imposing any charge on Internet content beyond the monthly service fee; preventing users from attaching any lawful device; selling content, applications, or other services to any affiliate to prioritize traffic; and from managing their network in ways that impede compliance with the bill.¹⁸⁴ Even more recently, the FCC, on November 30, 2009, issued a Notice of Proposed Rulemaking ("NPRM") embodying "soft" network neutrality ideals.¹⁸⁵ If adopted, the November 30th NPRM would essentially codify the FCC's Internet principles discussed in Part III.A. *supra*.¹⁸⁶ Finally, *The Wall Street Journal* reported on February 10, 2010, that Google Inc., a network neutrality advocate, is going to build an experimental fiber-optic network in several cities and offer it directly to consumers or through another ISP.¹⁸⁷ Google maintains that it will open the network up to any provider and will not discriminate the traffic that it carries.¹⁸⁸

It appears that increasing consumer welfare in the Internet context is a game played by taking two steps forward and one step back. Both Google's experimental project and the FCC's November 30th NPRM are great examples of pro consumer initiatives achieved through increasing innovation, competition, and by enhancing FCC enforcement. Conversely, H.R. 3458 threatens this progress by stifling ISP autonomy, innovation, and incentives to invest enormous capital in systems that will not generate a viable return to justify the initiative. Fortunately, H.R. 3458 will likely suffer the same fate of similar bills previously introduced and die a quiet death to the benefit of consumers.

VII. Conclusion

The Internet has undoubtedly had a profound impact on

¹⁸³ Internet Freedom Preservation Act of 2009, H.R. 3458, 111th Cong. (as referred to the H.R. Comm. on Energy and Commerce, July 31, 2009).

¹⁸⁴ *Id.* at § 12(b).

¹⁸⁵ See Preserving the Open Internet, Broadband Industry Practices, 74 Fed. Reg. 62,638 (proposed Nov. 30, 2009) (to be codified at 47 C.F.R. pt. 8).

¹⁸⁶ See *Id.* at 62,645.

¹⁸⁷ Vascellaro, *supra* note 92.

¹⁸⁸ *Id.*

the world since its introduction almost forty-one years ago, and it continues to expand, experiencing the occasional growing pain. Some of these growing pains have generated mass hysteria. Network neutrality exemplifies an uncomfortable transition in the Internet's history for many; but, under the current U.S. regulatory framework, the speculative fears of network neutrality proponents create far more harm than good to consumer welfare. After all, hysteria makes for bad policy – carrying a propensity for unintended and unforeseen adverse consequences. Proponents need to remind themselves that the Internet was invented and advanced into its current state with minimal government intervention. Further, any anti-consumer deviation since the Internet's inception has been swiftly dealt with and remedied by existing regulators. Despite all of this, proponents, naively, want to enact an over expansive bill that, ironically, will hurt the very consumers they vocally attest to protect. Sometimes the hardest action to take in the face of uncertainty is to take none at all. It appears that neutrality opponents might be correct when they claim, “network neutrality is a solution in search of a problem.”¹⁸⁹

¹⁸⁹ Rivers, *supra* note 4.