Free the Net

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FREE THE NET

I. INTRODUCTION

A hundred thousand people1 tuned in to see the webcast2 of Pearl Jam’s performance at the 2007 Lollapalooza Music Festival3 via AT&T’s website “blue room.”4 However, those at home missed out on more than a picturesque Chicago summer night. AT&T’s “content monitor” censored part of the performance.5 Unlike reasonable censorship of nudity or profanity,6 AT&T muted lead singer Eddie Vedder telling President Bush to “leave this world alone,” and asking him to “go find yourself another home.”7

Initially, AT&T responded to the resulting public outrage by claiming, “The editing of the Pearl Jam performance on Sunday night was not intended, but rather a mistake by a webcast vendor and contrary to our policy[. . .] . . . We have policies in place with respect to editing excessive profanity, but AT&T does not edit or censor performances.”8 It added, “[T]his mistake . . . is totally against our policy [] of never, ever censoring political speech.”9

In their official response to the incident, Pearl Jam asked people to post other instances of blue room censorship on their website’s message board.10 The Internet community responded, reporting multiple incidents of

6. AT&T censors nudity and excessive profanity (not contained within a song’s lyrics) because the Blue Room website isn’t age restricted. Even still, the Blue Room’s Terms of Use Agreement states that “by using this Site, you represent that you are at least 13 years old.” Maxcer, supra note 1; AT&T Blue Room, Terms of Use, http://www.attbluevideo.com/help/terms.php [hereinafter Terms of Use] (last visited Apr. 17, 2008).
8. Maxcer, supra note 1 (quoting an AT&T spokesperson).
9. Id.
10. Pearl Jam Rumor Pit, supra note 7.
Fans detailed similar experiences during performances by Lupe Fiasco, The Roots, Ozomatli, The Flaming Lips, The John Butler Trio, The Nightwatchman, Lilly Allen and Tom Petty. Every performer, except for Tom Petty, was censored for making a political statement. Although there is no evidence that AT&T intentionally censored a particular point of view, all the politically motivated censorships were of performers who were being critical of President Bush or had been in the past. Eventually, a prior webcast crew member came forward stating that he was told “to shut it down...if anybody starts getting political.” However not anybody was censored, only those whose views are inconsistent with AT&T’s heavily one-sided campaign contributions.

In addition to engaging in corporate censorship, AT&T defrauded the public by attempting to conceal its actions and then lying about it. Although the blue room website contains extensive terms of use and disclaimers, it

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13. Who Else Did AT&T Censor?, supra note 11.
14. Id.
fails to mention the potential for censorship. Moreover, instead of using an affirmative indicator of censoring, such as the traditional “bleep,” AT&T silenced each performer. This unintentional metaphor led viewers to assume the dead air came from a technical difficulty, as opposed to intentional censorship. Finally, AT&T admitted there was an ongoing issue but still failed to take any responsibility.

After the public backlash, it is doubtful AT&T will continue to censor political statements during blue room webcasts, but its actions became another rallying cry for network neutrality proponents. AT&T’s acts of censorship demonstrate “the mindset of a company, or companies, that want more control over what we see and hear than that to which they are entitled.” Network neutrality inhibits such control by preventing Internet service providers (ISPs) from discriminating against websites, types of information, and content providers. ISPs discriminate by speeding up, slowing down or blocking content from one specific or a group of content providers; for example, degrading a campaign contribution website hampering a candidate’s ability to collect online donations.

The implementation of a “discriminatory” or “prioritized” system would significantly harm the economic, social and political landscape of the

18. The Blue Room’s Terms of Use warns, “[t]his Site may contain language and video that is offensive, controversial, or only appropriate for an adult audience,” but there is no mention of any type of censorship. Terms of Use, supra note 6.
19. Who Else Did AT&T Censor?, supra note 11.
20. Id.
21. “It’s not our intent to edit political comments in Webcasts on the Blue Room[. . . ] Unfortunately, it has happened in the past in a handful of cases. We have taken steps to insure that it will not happen again.” Id. (quoting an AT&T spokesperson).
22. “Network neutrality is a concept—or maybe even a movement—that espouses treating all Internet sites, sources, and players equally.” Micheal J. Tonsing, The Internet as You Knew It May Have Died Last Month, and You Didn’t Even Know It, FED. LAW., July 2006, at 12.
24. Brodsky, supra note 5.
25. An Internet service provider (or ISP) is “[a]n organization that provides access to the Internet. Connection to the user is provided via dial-up, ISDN, cable, DSL and T1/T3 lines. Customers are generally billed a fixed rate per month, but other charges may apply.” PCMAG.com Encyclopedia, ISP Definition, http://www.pcmag.com/encyclopedia_term/0,2542,r=ISP&i=45481,00.asp (last visited Apr. 17, 2008).
26. The term “content provider” is used to describe “[a]n organization or individual that creates information, educational or entertainment content for the Internet, CD-ROMs or other software-based products. A content provider may or may not provide the software used to access the material.” PCMAG.com Encyclopedia, Content Provider Definition, http://www.pcmag.com/encyclopedia_term/0%2C2542%2Ct%3Dcontent+provider&i%3D40275%2C00.asp (last visited Apr. 17, 2008).
27. In a non-neutral (discriminatory or prioritized) network ISPs would cause one provider’s content (such as their website) to load faster and function more consistently for economic or policy reasons.
Internet. Therefore Congress must pass strong network neutrality legislation designed to preserve the Internet’s equal access policy and prevent ISPs from engaging in content discrimination. This legislation would ensure that “[j]ust as the electricity grid does not discriminate against Japanese televisions, or GE toasters, Internet service [providers can] not discriminate against games from Microsoft, or streaming video from Disney.”

This note is divided into four sections. Section II focuses on the substance of network neutrality, explaining how Internet discrimination works, the history of neutrality regulation and the ISPs’ intentions. Section III describes the economic and political ramifications of a non-neutral network and refutes claims made by network neutrality opponents. Finally, Section IV explains why legislation is necessary and proposes a statutory framework to ensure a neutral Internet.

II. THE HISTORY OF NETWORK NEUTRALITY

A. INTERNET 101 AND DISCRIMINATION

Akin to cars traveling on a highway, information sent across the Internet (an email, web-page, mp3 or any other type of Internet data) is broken down into packets and sent across telephone or cable lines. The lines have only a finite amount of space, expressed as bandwidth. This limits the amount of information that can pass through a particular point, similar to lanes on a highway. As a result, there are times when too many

30. See id.
33. A connection to the Internet can be made in other ways, such as via a wireless or satellite signal, but all function in a similar fashion. See generally Jeff Tyson, How Internet Infrastructure Works, HOWSTUFFWORKS.COM, http://computer.howstuffworks.com/Internet-infrastructure.htm (last visited Apr. 17, 2008) (discussing how a basic Internet connection and the infrastructure works).
34. Bandwidth is

[the transmission capacity of an electronic pathway such as a communications line, computer bus or computer channel. In a digital line, it is measured in bits per second or bytes per second (see Mb/sec). In an analog channel or in a digital channel that is wrapped in a carrier frequency, bandwidth is the difference between the highest and lowest frequencies and is measured in Hertz (kHz, MHz, GHz).

PCMAG.com Encyclopedia, Bandwidth Definition, http://www.pcmag.com/encyclopedia_term/0%2C2542%2Cf%3Dbandwidth&i%3D3%25401%2C00.asp (last visited Apr. 17, 2008).
packets are trying to get through the same section of “highway,” creating
the Internet’s version of a “traffic jam.” Since its inception, the Internet
has dealt with “congestion equally—packets get transported on a first-
come, first served basis.” Packets form a line at the point of congestion
and pass through in the order in which they arrive. Equal treatment of
packets levels the economic playing field by providing small start-up
companies and established multinational conglomerates equivalent access
to consumers, making the Internet economy a meritocracy.37

The meritocracy empowers consumers, and allows content providers to
be the innovators by ensuring them equal access to consumers.38 As a result,
“[t]he Internet has been a source of remarkable innovation and has opened a
new world of social and economic opportunities, precisely because of its
openness and diversity,” which has created an unparalleled level of
“customer choice, technological innovation and lower prices . . . .” In
contrast, the introduction of a discriminatory or tiered system would
decrease choice, stifle innovation and drive up prices because ISPs would
be selling a competitive advantage to large corporations or exclusively to
the highest bidder.41

Network neutrality proponents believe that Congress should pass
legislation barring ISPs from allowing “preferred” packets to “ride the
shoulder” past traffic.42 Imagine the Internet is I-95 and the government
brokered a deal that would create a special lane that during rush-hour could
only be used by General Motors (GM) vehicles. Consumers would
purchase GM vehicles because they wanted to avoid traffic, not because
GM makes the best cars on the market. Similarly, in the Internet world,
consumers would naturally gravitate toward web content whose producers
paid for access to the fast lane. Thus, the meritocracy would be destroyed.

36. Id.
37. Wu, supra note 32, at 146.
38. A neutral Internet “empower[s] not those who control[] the pipes but those at the
edges . . . .” AT&T Inc. & BellSouth Corp. Application for Transfer of Control, 22 F.C.C.R. 5662,
5831 (2007) (concurring statement of Comm’r Michael J. Copps); accord Telecommunications
Industry Hearing, supra note 31 (statement of Vinton Cerf, Vice President and Chief Internet
Evangelist, Google Inc.).
40. Trevor R. Roycroft, AARP Pub. Pol’y Inst., Tangled Web: The Internet and
41. See discussion infra pp. 14–19.
42. “The aim of those pursuing network neutrality . . . is not some imagined neutrality, but
rather the elimination of certain kinds of discrimination . . . .” Lawrence Lessig, Re-Marking the
Progress in Frischmann, 89 Minn. L. Rev. 1031, 1042 (2005).
43. Tim Wu, Why Should You Care About Network Neutrality, SLATE, May 1, 2006,
http://www.slate.com/id/2140850/.
44. See id.
B. THE END OF THE FREE INTERNET?

Due to the initial regulatory structure, the Internet was originally designed to be incapable of differentiating between, or discriminating against, packets, creating the meritocracy. The Communications Act of 1934, as amended by the Telecommunications Act of 1996, separates regulated organizations into two categories: telecommunications carriers and information-service providers (not to be confused with Internet service providers or the abbreviation ISP). “Telecommunications carriers,” treated as common carriers, are required to comply with a variety of regulations,including charging non-discriminatory rates and allowing other providers to connect with or utilize their networks. The Federal Communications Commission (FCC) extended similar protections “to transmission of data over telephone networks” in a series of proceedings beginning in 1968, known as the Computer Inquiries. Over the years the federal courts have reinforced these regulations and created others, such as a customer’s right to attach, on his end, any legal device to the system. By contrast, “information-service” providers are not subject to mandatory compliance with any of these requirements.

45. Wu, supra note 32, at 146.
47. The statute defines a “telecommunications carrier” as “any provider of telecommunications services,” which is defined as, “the offering of telecommunications for a fee directly to the public . . . regardless of the facilities used.” 47 U.S.C.A. § 153(44), (46).
48. “Telecommunication carriers . . . must charge just and reasonable nondiscriminatory rates to their customers, design their systems so that other carriers can interconnect with their communications networks, and contribute to the federal ‘universal service’ fund.” Brand X Internet Servs., 545 U.S. at 975 (citations omitted).
49. Essentially those proceedings determined that “companies providing communications services would not be allowed to interfere with or discriminate against information services.” SCOTT ET AL., supra note 29, at 7.
50. When the federal courts modified the Final Judgment of the case which broke up Ma Bell it required the remaining telephone companies to “provide to all interexchange carriers and information service providers exchange access, information access, and exchange services for such access on an unbundled, tariffed basis, that is equal in type, quality, and price to that provided by AT&T and its affiliates.” U.S. v. W. Elec. Co., Inc., No. 82-0192, 1982 WL 1882, at *2 (D.D.C. 1982). It also prevents those companies from discriminating between AT&T and other services. Id.
52. An “information service” is defined as the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.
53. See Brand X Internet Servs., 545 U.S. at 975–76 (discussing the difference between the classifications).
Since traditional dial-up home Internet connections developed over telephone lines, the telecommunications carrier regulations prevented telephone companies from “exercis[ing] any real power over the kind of Internet service made available across their wires.” As a result, a dial-up customer could attach a modem to his telephone jack and connect to the Internet through any service provider in the marketplace without restriction or interference from the telephone company.

The meritocracy was thus safe until Cisco Systems, Inc. developed a system to control information through “traffic-type identification, admission control and policing, [and] preferential queuing.” It marketed this technology as a way to maximize revenue generated using network and user control. Using this technology, ISPs could do away with the old regime of “first-come, first-serve” information transportation and create a system of “policy-based routing,” also called a discriminatory network.

As faster Internet connections developed, dial-up service was replaced by two types of broadband Internet access: digital subscriber lines (DSL) and cable modem connections. Like dial-up, DSL connections utilize telephone lines and thus were originally required to abide by the telecommunications/common carrier regulations. Cable modem service is exempt from those regulations because the FCC classified it as an

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54. Dial up

[r]efers to using the regular “dial-up” telephone network to send data from a computer to a remote network or to a remote device. The computer’s digital data are converted to analog signals in the same frequency range as human voice by a modem. At the other end, another modem converts the analog back to digital.

55. L ESSIG, supra note 35, at 155.

56. The term modem stands for MOdulator-DEModulator. “Until the late 1990s, the term stood for a device that allowed a computer or terminal to transmit data over a standard dial-up telephone line. Since the advent of high-speed cable and DSL connections, modem may refer to devices for low-speed dial-up or high-speed broadband.” PCMAG.com Encyclopedia, Modem Definition, http://www.pcmag.com/encyclopedia_term/0,t=modem&i=47164%2C00.asp (last visited Apr. 17, 2008).

57. Even today, as the popularity of dial-up connections wanes, consumers can choose from a variety of ISPs at very competitive prices. Comparenow, Compare Dial Up & Broadband Internet Plans, http://www.comparenow.net/default.htm (last visited Apr. 17, 2008).


60. Id.

61. See L ESSIG, supra note 35, at 156.

“information-service provider.”64 This legislative inconsistency created an artificial market control over cable-based ISPs, essentially forcing them to offer the same neutral service that the phone companies were required to provide because customers would naturally gravitate to an open system.65

On August 5, 2005 the FCC classified DSL and all other all wireline Internet connections as an “information service,” thus removing the common carrier consumer protections.66 That same day, the FCC also released a “Policy Statement” enumerating its four network neutrality principles:67

To encourage broadband deployment and preserve and promote the open and interconnected nature of the public internet, consumers are entitled to (1) access the lawful Internet content of their choice . . . (2) run applications and use services of their choice . . . (3) connect their choice of legal devices that do not harm the network . . . (4) competition among network providers, application and service providers, and content providers.68

C. ISP’S INTENT TO ENGAGE IN WEBSITE DISCRIMINATION CLEAR

After DSL was classified as an “information-service,” many ISPs began to flaunt their intent to prioritize the Internet. In November of 2005, AT&T Chief Executive Officer Edward Whitacre was asked if he was concerned about “Internet upstarts like Google, MSN, Vonage, and others?” His response, while inaccurate, leaves no doubt as to his intentions:

[W]hat they would like to do is use my pipes for free, but I ain’t going to let them do that because we have spent this capital and we have to have a return on it. So there’s going to have to be some mechanism for these people who use these pipes to pay for the portion they’re using. Why should they be allowed to use my pipes? The Internet can’t be free in that sense, because we and the cable companies have made an investment and for a Google or Yahoo! or Vonage or anybody to expect to use these pipes [for] free is nuts!69

64. Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, 17 F.C.C.R. 4798, 4802 (2002). The decision was affirmed by the Supreme Court in National Cable & Telecommunications Association v Brand X Internet Services, 545 U.S. 967. See also Lessig, supra note 35, at 155.
67. None of which mandate neutrality or prevent discrimination.
69. Patricia O’Connell, At SBC It’s All About “Scale and Scope”, BUS. WK., Nov. 7, 2005, http://www.businessweek.com/magazine/content/05_45/b3958092.htm?chan=search. Contrary to Whiteacher’s claims, content providers pay ISPs for access. See infra p. 23.
Then, less than a month later, the Chief Technology Officer for BellSouth, William L. Smith, claimed that ISPs should be able to charge a website such as “Yahoo, Inc. for the opportunity to have its search site load faster than that of Google, Inc.” and that “his company should be allowed to charge a rival voice-over-Internet firm so that its service [could] operate with the same quality as BellSouth’s offering.”

In December of 2006, BellSouth merged with AT&T, creating a corporation with a more than 50% broadband market share, but FCC Commissioners Michael Copps and Jonathan Adelstein refused to approve the merger unless AT&T agreed to a variety of pro-consumer concessions and abide by network neutrality principles. Eventually, AT&T acquiesced and promised to uphold network neutrality principles for two years or until Congress addressed the issue. While there is no evidence to suggest that AT&T has violated that commitment, it has stated an intention to engage in commercial agreements with video game content providers in order to “control quality of service, at a greater speed,” which would require discrimination against other sites.

While other ISPs have not been as brazen about their intentions as AT&T, many have advocated against network neutrality. The National Cable & Telecommunications Association, Verizon, Qwest Communications and the Cellular Telecommunications and Internet Association all advocated against network neutrality legislation in their

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72. The Department of Justice, the supposed antitrust watchdogs, allowed this merger to go “through without the imposition of even a single condition to protect competition or consumers.” AT&T Inc., 22 F.C.C.R. at 5836 (concurring statement of Comm’r Jonathan Adelstein). Additionally, the two voting Republican FCC Commissioners “favored few if any conditions.” Reardon, supra note 72; see AT&T Inc., 22 F.C.C.R. at 5829 (concurring statement of Comm’r Michael J. Copps); id. at 5835 (concurring statement of Comm’r Jonathan Adelstein).

73. In addition to compliance with the Commission’s Policy Statement on Network Neutrality, AT&T/BellSouth agreed “the combined company [will] not privilege, degrade, or prioritize the traffic of Internet content, applications or service providers, including their affiliates.” AT&T Inc., 22 F.C.C.R. at 5836 (concurring statement of Comm’r Jonathan Adelstein).


position papers to Congress’s Internet Caucus Advisory Committee. Prior to merging with Time Warner, America Online (AOL) was an avid supporter of network neutrality. But since the merger, AOL prefers to “let the marketplace” decide. Regardless of the negative impact on content providers and consumers, the majority of ISPs seem intent on engaging in discrimination.

III. RAMIFICATIONS AND REALITY

There are two basic types of discriminatory practices that violate network neutrality principles. First, ISPs can separate service into two or more tiers and charge content providers a fee for access to the preferred track. Alternatively, an ISP can intentionally speed up, slow down or block particular content. The decision of what to speed up and slow down can come from an exclusive agreement with a particular content provider, or because an ISP has a motive to degrade certain content. While a tiered system would radically alter the Internet’s economy, an ISP specifically discriminating against a particular content provider would produce even more alarming results.

A. AN EXAMINATION OF THE ECONOMIC EFFECTS OF A TIERED INTERNET

Even the implementation of a tiered system, where any content provider can pay to get into the fast lane, will have a drastic effect on the Internet.


77. As an ISP which did not own the infrastructure (cable and phone lines) their service is delivered through, AOL’s survival required a neutral system to access customers.


79. Before his company joined the cable giant, AOL’s Steve Case was a staunch network neutrality proponent and member of the Open Net Coalition, but after the merger even he changed his tune. Cfr. for Digital Democracy, AOL’s About-Face on Open Access, Mar. 7, 2007, http://www.democraciamedia.org/current_projects/net_neutrality/aol_aboutface; accord LESSIG, supra note 35, at 162–65.


81. See generally Krim, supra note 70 (quoting Smith’s claim that ISPs should engage in these types of agreements); Formal Complaint of Free Press & Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications (Nov. 1, 2007), available at http://www.publicknowledge.org/pdf/fp_pk_comcast_complaint.pdf [hereinafter Formal Complaint] (discussing possible motives for Comcast blocking their consumers from using BitTorrent).
Selling preferred status, and thus speeding up specific content, provides a significant competitive advantage for those able to pay. Logically, obtaining “preferred” status must be cost prohibitive for the average content provider; otherwise everyone would purchase “preferred” status, overcrowding the top tier and removing the incentive (avoiding traffic) to pay. Therefore, nearly all Internet content, except that produced by large corporations, will be forced into the slow lane. “Universities, entrepreneurs, consumers, small businesses and any other individuals without deep pockets” would all have their content relegated to the slow lane. People using the Internet “to speak to one another will experience frustrations and barriers while commercial products will flow quickly and easily.” The only groups who would benefit from these types of agreements are the ISPs collecting the tolls and the large corporations who can afford them.

A tiered system would also exacerbate the congestion problems for most content providers. Traffic only occurs when a line forms because bandwidth capacities are exceeded (or in the highway analogy’s terms, when five cars try to get through four lanes). A tiered system could work in two ways: Preferred packets could be allowed to cut to the front of the line or have reserved sections of bandwidth (the special GM lane analogy). Either way, congestion for non-preferred packets will be exponentially worse because they will have fewer lanes available to pass through, or be repeatedly bumped to the back of the line.

The ramifications for the online gaming industry, assuming AT&T engages in the priority transactions described in their Policy Statement, are illustrative. Consumers who prefer games created by large, established content providers able to pay the fast lane toll will have improved quality of service. However, since bandwidth remains constant “the process of network prioritization is a zero-sum game . . . every time one [w]ebsite or service is sped up, another must be slowed down.” Therefore consumers who prefer games made by content providers stuck in the slow lane would be disappointed.

82. “A network provider need not block competing applications to undermine the applications’ ability to compete. All a provider needs to do is render those applications sufficiently unreliable that people stop trying to use them.” Formal Complaint, supra note 81, at 21.
86. Felten, supra note 80, at 2–3.
87. Id. at 2–4.
88. AT&T, supra note 74.
89. Id.
90. See SCOTT ET AL., supra note 29, at 12.
be worse off. So even though AT&T’s corporate policy is to not “intentionally degrade . . . delivery of content,”91 the natural by-product of tiered service will be to impair the content of those unable to pay.

A prioritized system will “burden smaller, newer innovators”92 and ensure that innovation will come from large corporations.93 Many of today’s most popular content providers began as small start-up companies.94 Google’s founders started out in a friend’s garage,95 Facebook in a Harvard dorm room,96 eBay in its founder’s living room.97 It is doubtful that any of these startups could have succeeded under a prioritized system, because they would be left with “insufficient bandwidth to compete.”98 As FCC Commissioner Michael Copps notes, “[t]he next Drudge Report, Wikipedia, Craigslist, Instapundit or Daily Kos should not have to seek a massive corporation’s blessing before it can begin reaching out to the American public.”99

B. EXCLUSIVE AGREEMENTS, SELF-MOTIVATED DISCRIMINATION AND POLITICAL RAMIFICATIONS

The ramifications of the tiered system discussed above would all be exacerbated by ISPs engaging in exclusive agreements with content providers. As AT&T’s Smith threatened,100 an ISP could contract with Amazon.com to be the only Internet retailer with access to the fast lane.101 If these types of transactions are legal, the ISPs would actually be able to dictate who succeeds in the marketplace.102 The meritocracy would not just be destroyed; it would be replaced by a system where financial success and survival would be auctioned off by the ISPs to the highest bidder.

91. “[AT&T] will not block, impair or degrade access to any legal web site, application or service, will we not intentionally degrade the customer experience or the service delivery of content or application providers.” AT&T, supra note 74.
93. Innovation will no longer come from any person on the “edges,” but only through those who can afford to pay the ISPs tax. SCOTT ET AL., supra note 29, at 10.
94. Id. at 10.
98. Elec. Retailing Ass’n, supra note 92.
100. See supra note 70 and accompanying text.
101. These types of agreements are more common than one might think. For example, the iPhone, Time Magazine’s 2007 Invention of the Year, is only offered through AT&T’s cellular service. Lev Grossman, Invention of the Year: The iPhone, TIME, Nov. 12, 2007, at 60.
102. Formal Complaint, supra note 81, at 21.
Additionally, an ISP could block or degrade a content provider that competed with a service also provided by that ISP. Since many ISPs are also content providers, they have strong motives to block or degrade particular sites. In 2004, Madison River Communications completely blocked Vonage’s Internet telephone service because it competed with its own Voice Over IP (VoIP) service. Today, applications like BitTorrent and content providers like Joost are used to legally disseminate movies and televisions shows and thus are in direct competition with cable television and are prime targets for degradation by a cable ISP. If ISPs are allowed to engage in this type of activity, creativity and innovation will be deterred.

In addition to protecting the Internet economy, network neutrality also ensures politicians equal access to voters and supporters. Today, Americans “routinely” research political issues on the Internet, and many candidates have found it to be a very lucrative tool for fundraising. In fact, one-third of John Kerry’s donations for the 2004 presidential race

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103. The perfect example of this is an ISP that is owned by a cable company blocking or degrading an Internet television service because it competed with their cable television service.
104. VoIP is [a] digital telephone service that uses the public Internet as well as private backbones instead of the traditional telephone network. Many companies, including Vonage, 8x8 and AT&T (CallVantage), typically offer calling within the country for a fixed fee and a low per-minute charge for international. Broadband Internet access (cable or DSL) is required, and regular house phones plug in to an analog telephone adapter (ATA) provided by the company or purchased from a third party.

106. BitTorrent is a peer-to-peer file distribution (or sharing) network. Information about BitTorrent services can be found at http://www.bittorrent.com/. See also Formal Complaint, supra note 81, at 14 (providing a detailed description about how the BitTorrent application functions).
109. There is no incentive to invest the capital necessary to create the technology which could replace cable television service if the ISPs can degrade your service enough to disinterest the public.
110. “The short-term issue may be telecommunication companies charging higher prices to companies such as Google and eBay . . . [but] [t]he longer-term issue may be whether economic activity and democratic debate are available at the same level for those with access.” Jem Bendell & Jonathan Cohen, World Review: April–June 2006: A Synopsis of the Key Strategic Developments in Corporate Responsibility Around the Globe Over the Last Quarter, J. CORP. CITIZENSHIP, Autumn 2006, at 5.
111. Sidak, supra note 28, at 379. In the 2006 mid-term elections candidates used YouTube as a “quick, inexpensive, and effective alternative to paid television advertisements.” See also Media Access Project, supra note 85.
came from Internet contributions, and Ron Paul, a Republican Congressman from Texas, was able to collect more than $6 million in a single day. Since “all [of] politics is about being a little better than the other guy,” by simply degrading access to donation websites ISPs could have significant influence over elections. This same concept could be used to influence legislation via lobbying and/or back-room deals.

The telecommunications industry, which includes ISPs, outspends even the oil and gas industry on political contributions. AT&T donated more than $48 million, and the industry as a whole spent over $700 million from January 1998 through June 2004. In 2003 the industry successfully lobbied the FCC to increase “the national broadcast television cap . . . [and remove the] prohibition against owning two TV stations in the same market,” despite the fact that 99% of the record 700,000 public comments were in opposition to the rule changes. Today, that money is being used “to stake out and reserve as much of the Internet as possible for commercial interests.” Shortly after Philadelphia announced its plans to install a municipal WiFi system the State Senate passed a “bill [that] essentially forbids any ‘political subdivision’ or entity . . . from providing for a fee any telecommunications service for the public. Broadband Internet access is specifically cited as such a service.” Considering the amount of capital ISPs already have invested in lobbying and the success they have had, there seems no reason to assume they will not begin to use their networks for further leverage.

118. THE BLUE PAGES, supra note 115, at 179.
119. A municipal Wi-Fi system is essentially a public operated wireless Internet connection available to the public either for free or a set fee. See PCMag.com Encyclopedia, Muni Wi-fi Definition, http://www.pcmag.com/encyclopedia_term/0,2542,t=Muni+Wi-Fi&i=55930,00.asp (last visited Apr. 19, 2008); PCMag.com Encyclopedia, HotSpot Definition, http://www.pcmag.com/encyclopedia_term/0,2542,t=HotSpot&i=44405,00.asp (last visited Apr. 19, 2008).
C. DEBUNKING THE ARGUMENTS AGAINST NETWORK NEUTRALITY

A consistent criticism by network neutrality opponents is that the market would never allow them to discriminate against certain websites. However, those claims are contrary to basic economic theory. “When entry barriers are high and there are few, if any, alternative suppliers, the discipline of market forces [is] weakened.” The broadband Internet market has both limited competition and few choices for consumers. The cost of implementing an entire telephone, cable, wireless or satellite service is enormous. Only about 50% of Americans have a choice between cable and DSL broadband service; the rest either have one or no option for high-speed Internet service at all. Local cable television service exemplifies this, because competitors are typically forbidden to enter the market place and customers have little recourse when they are dissatisfied. “When customers do not have good exit options—when they must either take what the seller offers or do without—their ability to discipline sellers is greatly reduced,” and thus the Internet market is unable to control or influence ISP’s policies.

Some opponents of network neutrality claim that the absence of congressional regulations has fostered investment in and growth of the Internet. In fact, AT&T’s Vice President actually called equivalent treatment a “pretty radical concept.” While Congress technically has left the Internet mostly unregulated, the previously described communications regulations mandated neutral treatment of websites. Network neutrality opponents are correct that the Internet has “encourage[d] billions of dollars

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121. See AT&T, supra note 74.
123. “In a 2004 analysis, the [FCC] reported that only 53[%] of Americans had a choice between cable modem service and DSL service. Of the remaining consumers, 28[%]had only one choice, and 19[%]had no choice at all.” Telecommunications Industry Hearing, supra note 31 (statement of Vinton Cerf, Vice President and Chief Internet Evangelist, Google Inc.).
124. GWARTNEY ET AL., supra note 122, at 560.
125. In fact, government studies have shown that prices could drop up to 30% for apartment buildings with exclusive cable provider deals if even a single competitor is allowed to enter the market. Stephen Labaton, FCC Set to End Sole Cable Deals for Apartments, N.Y. TIMES, Oct. 29, 2007, at A1.
126. 99.5% of “consumer customers” connect to the Internet through either the local cable or telephone monopoly. Telecommunications Industry Hearing, supra note 31 (statement of Vinton Cerf, Vice President and Chief Internet Evangelist, Google Inc.).
127. GWARTNEY ET AL., supra note 122, at 560.
128. The National Cable & Telecommunications Association wrote, “Congress’s policy of leaving the Internet unregulated . . .” and Verizon claimed “Congress has taken a “hands off” approach to regulating the Internet.” Nat’l Cable & Telecomm. Ass’n, supra note 76; Verizon, supra note 75.
130. See discussion supra Part II.B.
in investment,” but they fail to mention that until recently the system has always had some form of mandatory neutrality.131

AT&T’s Whiteacre claims that network neutrality legislation is like “saying that we should add no more lanes to a highway that is increasingly congested.”132 However, the reverse is actually true. A non-neutral network creates a disincentive for ISPs to develop new technology that would increase bandwidth.133 Scarcity of bandwidth causes congestion, which motivates content providers to pay for “preferred” status. If bandwidth is increased, that motivation, along with ISP revenues, will decrease.

Another rationalization for engaging in priority transactions is that ISPs need to obtain a return on their investments in constructing their infrastructure.134 Except that “broadband subscribers paid over $20 billion in 2005 for access to the Internet”135 and “[t]he four Bell companies alone collect over $14 billion annually in revenues from selling special access services to Web companies, ISPs, and other users of the local data networks.”136 According to the FCC, those special services provide the Bells an average rate of return of over 50%.137 In addition, the industry receives billions of dollars each year in public subsidies to defray the cost of installing their networks.138 In fact, “over the past [five] years, the four Bell [c]ompanies have received more than $15 billion in subsidies to sustain their rural networks.”139 In total, public subsidies decreased the telecommunications industry’s operating costs by $5.7 billion in the year 2000 alone.140 Finally, ISPs are not the only ones investing in the Internet; “content providers have [also] invested billions of dollars to provide consumers with a reason to subscribe to broadband.”141 Under a prioritized network, content providers would be forced to use their capital to subsidize ISPs instead of investing it in improving the quality of their service.142 Network neutrality legislation would not inhibit the ISPs from obtaining a

131. Nat’l Cable & Telecomm. Ass’n, supra note 76; Verizon, supra note 75.
132. What Does AT&T Have to Say, supra note 129 (quoting AT&T Chairman and CEO Edward Whiteacre).
133. See SCOTT ET AL., supra note 29, at 18.
134. O’Connell, supra note 69; accord Verizon, supra note 75.
135. Telecommunications Industry Hearing, supra note 31 (statement of Vinton Cerf, Vice President and Chief Internet Evangelist, Google Inc.).
136. Id.
137. Id.
138. See SCOTT ET AL., supra note 29, at 15.
139. The majority of this money comes from collection of the “Universal Service Fund” through a line item fee charged directly to consumers on their monthly telephone bills. Id. at 14.
142. Wu, supra note 43.
return on their investments;\textsuperscript{143} it only ensures that revenue does not come from auctioning off a competitive advantage to content providers or unethically discriminating against their competitors.

Finally, ISPs claim that the removal of network neutrality protections will lower customers’ monthly Internet bills now or prevent cost increases in the future.\textsuperscript{144} While that may be true, consumers will ultimately end up paying the same amount. Even if broadband prices are depressed, the content providers subsidizing those savings through the fast lane toll will be forced to increase prices.\textsuperscript{145} Therefore, the amount of money that consumers pay is likely to remain constant, but ISPs will be receiving a larger piece of the overall Internet income.

IV. LEGISLATION

A. WHY LEGISLATION IS NECESSARY

The FCC’s current position on network neutrality coincides with AT&T’s Vice President’s position: “to watch and observe and act only if there are bad things happening.”\textsuperscript{146} Deterrent, as opposed to reactionary, legislation and enforcement is essential because it is difficult to uncover violations, and ISPs have the ability to cover up their actions.\textsuperscript{147} Moreover, waiting for a network neutrality violation to surface is ineffective because typical consumers may not realize their ISP is degrading a particular website.\textsuperscript{148} It took the Associated Press two months of research to uncover

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\textsuperscript{143} ISPs may have been having problems obtaining a return on their investments, but which ones? In recent years those investments have been focused on increasing their monopoly-like control over the industry.

The track record shows steadily lower spending on networks to increase free cash flow for acquisitions. The $140 billion SBC spent acquiring Ameritech, PacBell, SNET, AT&T Wireless and AT&T lifted the company’s market cap by only $40 billion . . . [however that same] $140 billion happens to be about what it would cost to run fiber [optic cables] to every home in America.


\textsuperscript{144} SCOTT ET AL., \textit{supra} note 29, at 17.

\textsuperscript{145} Id. at 17.

\textsuperscript{146} Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, 20 F.C.C.R. 14,853, at 14,904 (2005); \textit{What Does AT&T Have to Say, supra} note 129 (quoting AT&T Vice President Jim Cicconi).

\textsuperscript{147} Comcast used a system designed make users believe it was the program or another computer causing the application to fail, akin to a telephone “operator breaking into the conversation, telling each talker in the voice of the other: ‘Sorry, I have to hang up. Good-bye.’” Petition for a Declaratory Ruling that Degrad ing an Internet Application Violates the FCC’s Internet Policy Statement and Does Not Meet an Exception for “Reasonable Network Management” at 12 (Nov. 1, 2007), available at http://www.publicknowledge.org/pdf/fp_et_al_nm_declaratory_ruling.pdf [hereinafter Petition for Declaratory Ruling].

\textsuperscript{148} “The thing with the technology today is you can be fairly subtle . . . [s]o every 20th page hit gets a ‘Page Not Found’ error. The average consumer will blame that on the destination site.”
the violations alleged in the recently filed Formal Complaint\textsuperscript{149} with the FCC against Comcast.\textsuperscript{150} Even after this investigation, “the full extent and methods of Comcast’s discrimination remain unknown”\textsuperscript{151} because Comcast went to great lengths to keep its actions secret and avoid responsibility.\textsuperscript{152}

The petitioners allege that Comcast has been secretly\textsuperscript{153} inhibiting subscribers on its network from utilizing different Internet applications including BitTorrent,\textsuperscript{154} Gnutella\textsuperscript{155} and Lotus Notes.\textsuperscript{156} If those allegations are true, Comcast has actually committed “the most egregious network neutrality violation” possible because it was “secretly degrading innovative, competitive applications.”\textsuperscript{157} For example, one of the many uses for BitTorrent technology is the distribution of television programs and movies.\textsuperscript{158} Many of the content providers typically found on cable television already use it for that purpose.\textsuperscript{159} As the technology develops over time it

\begin{itemize}
\item Schatz & Squeo, supra note 105 (quoting Paul Misener, Vice President of Global Public Policy, Amazon); see also Felten, supra note 80, at 5 (providing an in-depth discussion of the difficulty in detecting discrimination).
\item 149. Formal Complaint, supra note 81.
\item 150. Although the first reports of Comcast Actions began to surface in August of 2007 it wasn’t until October before the AP was able to finish its own assessment and determine that the violation was actually occurring. See Marguerite Reardon, Comcast Denies Monkeying with BitTorrent Traffic, CNET NEWS, Aug. 21, 2007, http://www.news.com/8301-10784_3-9763901-7.html; Marguerite Reardon, Thanks to BitTorrent, Net Neutrality Debate Reignites, CNET NEWS, Nov. 2, 2007, http://www.news.com/Thanks-to-BitTorrent%2C-Net-neutrality-debate-reignites/2100-1034_3-6216750.html?tag=item.
\item 151. Petition for Declaratory Ruling, supra note 147, at 14.
\item 152. Initially, “Comcast flatly denied any blocking, degrading or ‘filtering’ any protocols.” Formal Complaint, supra note 81, at 8.
\item 153. Comcast uses a system which advertises its ability to keep users in the dark, claiming “subscribers have no indication of what is happening.” Id. at 11 (citing a page on Sandvine Inc.’s webpage that has since been removed).
\item 154. The complaint alleges that Comcast used secretive methods to significantly delay traffic, “prevent[ing] Comcast subscribers from publishing or republishing material using BitTorrent.” Id. at 7.
\item 155. “In the case of Gnutella, Comcast’s degradation reduces or even prevents a user’s ability to find other Gnutella users and either upload or download material over the network.” Id. at 7.
\item 156. Lotus notes is a software enable telecommuting and long distance collaboration by allowing “people to effectively share and manage information, make business decisions quickly and streamline the way they work.” IBM Business Email Software, Lotus Notes, http://www-306.ibm.com/software/lotus/products/notes/ (last visited Apr. 19, 2008); Formal Complaint, supra note 81, at 7.
\item 157. Petition for Declaratory Ruling, supra note 147, at 7.
\item 159. The list of content providers includes: Showtime, BBC, A&E, the History Channel, the Biography Channel, National Geographic, Starz 20th Century Fox, Lionsgate, Palm Pictures, Paramount, Starz Media, MTV Networks (including Comedy Central, MTV, MTV2, Nickelodeon, Nicktoons Network, SpikeTV, The N, TV Land and VH1), the CW, CBS Corporation, BET, the Discovery Channel, New York Times, Time, Reuters, the Washington Post, Sky, Warner Music Group and Sony BMG Music Entertainment. Formal Complaint, supra note 81, at 17–18.
\end{itemize}
could be used to compete with cable television, giving Comcast a strong financial incentive to hinder its popularity and consequently its development.

Considering the difficulty in uncovering website discrimination and the ramifications of network neutrality violations, strong legislation by Congress is needed to replace the current wait-and-see approach by the FCC. Without legislation Internet users must trust the FCC to act as the policemen of the Internet, even though half of the voting Commissioners believed the AT&T BellSouth merger should have been approved without any pro-consumer requirements. Can a corporation like Comcast be trusted not to interfere with emerging technologies which may replace their lucrative cable television service? Can a corporation like AT&T “be trusted to tell the truth about the Internet . . . when they can’t be trusted with something as simple as a Web feed?”

B. REASONABLE LEGISLATION

AT&T’s commitment to abide by the network neutrality principles set forth in their merger agreement with BellSouth expires in December 2008, but it provides Congress with an opportunity to step in and create a long-term solution to the network neutrality debate. Today a few corporations control Internet access for nearly every person in the United States, and measures must be taken to ensure that those corporations do not “reshape the Internet . . . in whatever way best serves their own profit motives.” Congress must legislate to ensure that the Internet continues to grow in a way that best serves the public by keeping the Internet free, open and neutral.

The Appendix to this note is an outline for a model network neutrality statute. The statute is designed to ensure that the Internet remains “open and accessible to folks and running in a neutral fashion to avoid those who may be in control of the distribution of that technology from also controlling content on it.” It incorporates sections from the FCC Policy Statement on network neutrality, the FCC’s approval of the AT&T BellSouth
merger, and the Communications Act of 1934, as amended by the Telecommunications Act of 1996. Instead of prohibiting any agreement between content providers and ISPs, the model statute prevents discriminatory behavior by prohibiting the prioritization, degradation or blocking of any packet. Therefore it will not inhibit any traditional ISP revenue streams. The legislation ensures the consumer’s right to access any lawful Internet content, attach any legal device, and run any lawful application. It attempts to quell some of the concerns of network neutrality opponents by creating a few exceptions, mostly for medical and emergency-management purposes. Finally, the common carrier restrictions removed by FCC reclassification are replaced.

The fines imposed for violations are severe but necessary. The amounts are based on the telecommunications forfeiture penalties in United States Code Title 47, Chapter 5, Subchapter 5, Section 503. As described above, the ramifications of a single violation may have an immeasurable impact. But more importantly the fines must be large enough to prevent an ISP from considering them a cost of doing business, account for the reality that ISPs are unlikely to get caught, and incorporate the difficulty and cost of determining if a violation has occurred.

169. AT&T Inc. & BellSouth Corp. Application for Transfer of Control, 22 F.C.C.R. 5662 (2007).
170. Formal Complaint, supra note 81, at 34.
171. “Because network providers may attempt-as Comcast has-to fool society and deciphering instances of broadband discrimination may be difficult, the FCC should impose even heavier forfeitures. Otherwise, network providers could rationally determine that discrimination is worth the gamble, as the chance of getting caught is low.” Formal Complaint, supra note 81, at 35.
PROPOSED NETWORK NEUTRALITY STATUTE

SECTION 1—DEFINITIONS
1) Internet Service Provider—any organization that provides customers access to the Internet through any method now or hereafter known.
2) Internet Content Provider—any organization or any individual that creates any type of content for the Internet, including, but not limited to applications, websites and downloadable files.
3) Wireless Broadband Provider—any organization that provides access to the Internet without use of a hard-line connection to the consumer. This includes cellular and satellite connections.
4) Internet Exchange Point—“the point of interconnection that is logically, temporally or physically closest to the customer’s premise, where public or private Internet backbone networks freely exchange Internet packets.”
5) Incident—An incident occurs each and every time a regulation is violated.
6) Occasion—Each time a formal complaint is filed, a violation is determined to have occurred and a fine is assessed shall be considered one occasion.

SECTION 2—RESTRICTIONS
All of the following restrictions shall apply:

from the network side of the customer premise equipment up to and including the Internet Exchange Point closest to the customer’s premise, defined as the point of interconnection that is logically, temporally or physically closest to the customer’s premise where public or private Internet backbone networks freely exchange Internet packets.

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172. AT&T Inc., 22 F.C.C.R. at 5814.
173. Meaning that if an Internet service provider blocked a competing VoIP service, like in the Madison River Case, each time a single consumer attempted to use that service an incident would occur. Therefore, if five consumers attempted to use the service five times before the practice stops, twenty five incidents would have occurred.
174. Thus if Madison River were to again block Vonage’s VoIP service, or engage in another violation it would be considered a second occasion.
175. AT&T Inc., 22 F.C.C.R. at 5814.
The following restrictions shall apply to all Internet Service Providers:

1) **No Internet Service Provider** shall deny consumers access, through blocking or degrading response time, to “the lawful Internet content of their choice.”

2) **No Internet Service Provider** shall restrict or inhibit, in any manner, a consumer’s ability to attach or connect any legal device to the network, provided that device does not harm the network.

3) **No Internet Service Provider** may privilege, degrade, prioritize or discriminate against any packet transmitted across its network based upon that packet’s type, content, source, ownership, or destination.

4) **No Internet Service Provider** may deny, restrict or inhibit any consumer’s ability “to run applications and use services of their choice, subject to the needs of law enforcement.”

5) **All Internet Service Providers** must charge reasonable and equitable rates to all of their broadband subscribers. In addition, all practices, classifications, terms, regulations and limitations placed on any consumer must be reasonable, equitable and just.

6) **No Internet Service Provider** may engage in any practice or activity, or implement any policy, that decreases “competition among[st] network providers, application and service providers, and content providers.”

### SECTION 3—EXCEPTIONS

None of these exceptions shall “result in privileging, degradation, or prioritization of packets transmitted or received by [any Internet Service Provider’s] non-enterprise customers’ wireline broadband access service.”

#### A) GENERAL EXCEPTIONS:

The FCC will have the opportunity to approve exceptions to these restrictions, which may be applied for by content providers or Internet Service Providers and must fall into one of the following categories:

1) Necessity of police, fire or other emergency response services;

2) No-fail connectivity or prioritization provided for emergency management and health-monitoring services.

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177. AT&T Inc., 22 F.C.C.R. at 5814.
180. Id.
182. AT&T Inc.; 22 F.C.C.R. at 5814.
B) ENTERPRISE CONSUMER EXCEPTIONS:

These regulations shall not apply to an Internet Service Provider’s “enterprise managed IP services, defined as services available only to enterprise customers that are separate services from, and can be purchased without, [an ISPs] wireline broadband Internet access service.”

C) WIRELESS EXCEPTION:

1) Wireless broadband service providers may cap downloads at a per-day maximum, provided that maximum is communicated to subscribers prior to entering into a service agreement with that service provider.

2) Wireless broadband service providers may charge a reasonable additional fee for access to bandwidth-intensive content, applications, or services, provided the wireless broadband services offer an Internet connection with a speed of less than five megabytes per second.

SECTION 4—PENALTIES FOR VIOLATIONS

1) All violations of the above regulations will result in a minimum fine of $5,000 and a maximum fine of $10,000 per Incident.

2) As determined by the severity of the infraction and whether any measures were implemented to avoid discovery.

3) If an Incident is determined to be continuing, defined as affecting an individual consumer more than five times, the per Incident fine may be replaced by a $100,000 per consumer affected fine at the discretion of the FCC.

4) For any intentional or knowing violation the fine may be doubled.

5) For each occasion an Internet Service Provider is fined, after the first, an additional $2,000,000 fine shall be assessed.

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