

Net Neutrality: An International Policy for the United States

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I. INTRODUCTION

Alex and John are good friends. Both Alex and John live in the same city in California, but they have different ways of connecting to the Internet through different Internet Service Providers (ISPs). They even have different cell phone providers. Alex and John constantly talk to each other when playing computer video games using Voice-Over-Internet Protocol (VoIP), which allows phone calls to be placed over the Internet rather than traditional phone lines.

When John takes a trip to Europe, he brings along his computer. He intends to talk to Alex using his computer with the same VoIP they used in California. That way they can chat about the trip and maybe play a game or two online. However, when John attempts to connect and call Alex, he finds that the call is “patchy,” there is a substantial delay, and occasionally a lost signal. Yet, the unpredictable nature of the VoIP connection has nothing to do with the physical distance or quality of the lines. John may not know it, but the VoIP application that he is using is not favored by Alex’s ISP in California for connections originating from overseas. In fact, Alex’s ISP has an exclusive contract with a VoIP software application company that makes sure that only the preferred VoIP works uninterrupted for calls originating from overseas. The preferred VoIP company always gets priority on the network and works

perfectly. In fact, Alex's ISP advertises on its website that the preferred company is the best-working VoIP for its subscribers, and it can be "bundled" when paid for with other services.

Obviously, this scenario illustrates a common concern about networks that discriminate against content and services. But, what if Alex's ISP decides to block the non-preferred traffic outright? What if it takes a middle road and only sometimes blocks the non-preferred traffic completely, makes it "patchy," or actually allows it without interruptions, especially when other traffic is low? Is that discrimination? Or is it merely a tiered network for those that are willing to pay more?

Consider this scenario: Alex and John still are avid video game players and play hours a day, each connecting from the same town through different ISPs. However, since it is a peak Internet traffic time, it may be difficult for them to play. While Alex has the "Diamond" package from his ISP that ensures he has guaranteed high-bandwidth connection, John's ISP does not offer anything other than regular residential service. John must compete with everyone else in his local area for bandwidth, including a few who constantly watch high-definition video-on-demand and subsequently constrain bandwidth for other users. Would it not be a great solution for John to buy a better package that would ensure that he has a guaranteed connection like Alex? Perhaps he could, but it might take a network that discriminates based upon traffic and that is decidedly not enshrined with "network neutrality."

A. What is Net Neutrality?

The term "network neutrality" was coined by Columbia Law Professor Tim Wu to describe the effort by adherents of an "open access" communications platform to treat all data on a network equally.¹ The term has since been co-opted into a concept or a movement that espouses treating all Internet sites, sources, data, and players equally, regardless of the perceived importance of the content.² In other words, an e-mail sent

1. Michael J. Tonsing, *The Internet as You Knew It May Have Died Last Month, and You Didn't Even Know It*, FED. LAW., Jul. 2006, at 12, 12; Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. TELECOM. & HIGH TECH. L. 141, 141 (2003).

2. See Tonsing, *supra* note 1.

to a family member would have as much priority as an electronic money transfer, or even a webcast discussing a national security threat.³

Proponents of a neutral network seek the government's role in ensuring that the "open access" net neutrality principle is respected. Critics of the "open access" neutral network, meanwhile, state that regulation is unnecessary and is likely to hinder broadband network development.⁴ Perhaps coincidentally, both advocates and opponents of network neutrality state that they are "saving the Internet" either from the discrimination of self-serving corporations or needless regulation by the government, respectively.⁵

The dualistic reaction to network neutrality has created a situation where both sides are trying to "save the Internet" without knowing the actual consequences of regulation or the lack thereof on the marketplace for content distribution. Juxtaposed upon this debate is Wu's argument that the regulatory decision for an individual network is not necessarily between a network that is completely open or completely closed, but instead, should be based on how a network treats outside content in relation to its own content.⁶

This Comment examines the above issues in the context of the regulatory environment surrounding the net neutrality in the United States and Europe. The focus is on the international ramifications of different proposals and a critique of the United States' statutory neutrality solution. Part II provides an overview of the Internet's development, the historical role of telecommunications companies, and the regulatory environment. Part III focuses on the background of the issue and on the arguments of the players campaigning for and against net neutrality. Part IV reveals various proposals for solving the net neutrality debate in the United States and internationally, with an emphasis on various consequences of previous regulations and their application to potential United States neutrality legislation. The Comment concludes in Part V by showing that proponents on both sides of the debate are misguided in their basic assumptions. It proposes that the real solution should come

3. Although there are at least seven different distinctive meanings to which net neutrality is attributed, this article will focus primarily on consumer concerns which include the "selectivity by the carriers over content they transmit" and the "discrimination on content providers who compete with the carriers' own content." Eli Noam, *A Third Way for Net Neutrality*, FIN. TIMES, Aug. 29, 2006, <http://www.ft.com/cms/s/acf14410-3776-11db-bc01-0000779e2340.html>.

4. Wu, *supra* note 1, at 141.

5. For the views of those who advocate network neutrality, see *Save the Internet: Fighting for Internet Freedom*, <http://www.savetheinternet.com> (last visited Oct. 18, 2007); *Defend Network Neutrality*, <http://www.defendnetneutrality.org> (last visited Oct. 18, 2007). For the views of those opposed to network neutrality, see *Hands Off the Internet*, <http://www.handsoff.org/blog> (last visited Oct. 18, 2007).

6. See Wu, *supra* note 1, at 143-44.

in the form of the adoption of several coordinated steps designed to spur competition and keep Internet content and services accessible to consumers.

II. BACKGROUND

A. Development of the Internet

The regulatory frameworks and policy considerations surrounding the net neutrality debate revolve around the system architecture that began with phone-line networks and expanded to broadband and wireless.⁷ Early networks adopted two distinct features, the end-to-end principle and discrimination based upon tiered networking.⁸ These features not only shaped the way data was transmitted, but also formed the basis for how people envisioned the Internet as an information conduit. The following section briefly describes how these concepts work and their crucial importance to the net neutrality debate.

1. The Dumb Network: End-to-End Principle

A key difference between the Internet and a traditional telephone network is where the “intelligence” of the network lies, or in other words, how the network knows which data goes where.⁹ In a telephone network, the intelligence is centralized at various circuit switches which route calls based upon call routing numbers.¹⁰ In contrast, Internet intelligence resides at the ends of the network. There, a user’s device or server does the heavy lifting and determines if the received data is intended for it.¹¹ This leads to the phenomenon of the so-called “dumb” network, first identified by Jerome Saltzer, David Clark, and David Reed in their seminal white paper, *End-to-End Arguments in System Design*,

7. See Edward W. Felten, Nuts and Bolts of Network Neutrality 2 (Jul. 6, 2006) (unpublished manuscript, on file with the Center for Information Technology Policy Department of Computer Science, and Woodrow Wilson School of Public and International Affairs, Princeton University), available at <http://itpolicy.princeton.edu/pub/neutrality.pdf> [hereinafter *Architecture of Network Neutrality*].

8. *Id.* at 3.

9. JONATHAN E. NUECHTERLEIN & PHILIP J. WEISER, DIGITAL CROSSROADS: AMERICAN TELECOM POLICY IN THE INTERNET AGE 170 (2005).

10. *Id.*

11. *Id.*

identifying the architecture of file-transfer networks.¹² At each point in this “dumb” network, data is merely noted as to its destination and is then sent on its way, with complete indifference as to the nature of the data or its priority.¹³ At this point, if the location where the data is sent is occupied by another outgoing message, or packet, the information is “buffered” and stored in the memory of that point, or router.¹⁴ When the destination is available, the packet is sent. However, when packets arrive more quickly than they can be sent and buffering has used all the memory in the router, new incoming packets are completely dropped, leading to message failures.¹⁵ This type of “dumb” network data transfer was originally identified for its reliability,¹⁶ but it has the additional benefit of establishing a content neutral platform because there is no hierarchy of message priority, other than the familiar first-come, first-served priority system.¹⁷

Some argue that this “dumb” network principle is fundamental to the success of the Internet and is responsible for the invention of new services and the Internet’s hyper-growth.¹⁸ Noted net neutrality commentator, Lawrence Lessig, views this principle as the defining characteristic of the Internet and cites three critical benefits.¹⁹ First, since applications only run at the ends of the network, a new innovator or entrepreneur needs only to connect to the Internet at any point to be able to display and subsequently sell his wares without permission or payment to an intermediary. Second, since the network is not optimized for any existing applications, there is no inherent barrier to entry for the new innovator. Third, the network actually can not discriminate against a rival’s application or product, essentially forcing a neutral platform for competition.²⁰

The benefits of the “dumb” network can be illustrated in an example of a hypothetical small town. The town has a Main Street containing the

12. *Id.*; see J.H. Saltzer, D.P. Reed & D.D. Clark, *End-to-End Arguments in System Design* 2 ACM TRANSACTIONS IN COMPUTER SYSTEMS 277, 277-78 (1984), available at <http://web.mit.edu/Saltzer/www/publications/endtoend/endtoend.pdf>.

13. NUECHTERLEIN & WEISER, *supra* note 9, at 170.

14. Architecture of Network Neutrality, *supra* note 7, at 2.

15. *Id.* at 2-3.

16. See Saltzer, Clark & Reed, *supra* note 12.

17. But see Christopher S. Yoo, Promoting Broadband Through Network Diversity 3-4 (Feb. 6, 2006) (research paper prepared for the National Cable and Telecommunications Association), available at <http://www.ncta.com/DocumentBinary.aspx?id=286> (advancing the argument that the first-come, first-served model enshrined in the end-to-end principle is not actually neutral because it inherently disadvantages applications that are less tolerant to disruptions and buffering).

18. See David S. Isenberg, *The Dawn of the “Stupid Network,”* NETWORKER, Feb./Mar. 1998, at 24.

19. NUECHTERLEIN & WEISER, *supra* note 9, at 170.

20. *Id.*

its commercial hub. In this real world example, only a limited number of stores can exist on Main Street. Many stores will not be located on Main street, but instead on smaller, less traveled side streets. There is an inherent advantage to being on Main Street because each store will get more foot traffic and hence more customers. Additionally, Main Street stores have better access to government services, such as police and fire protection. The Main Street stores also have “curb appeal,” attracting more customers to their location in contrast to the dimly-lit, crime-ridden, tinder-box back alleys where the less-desirable stores are found.

The “dumb” network essentially puts everyone on Main Street, from the big-box retailer with dominant market power to the classic garage startup company that has no customers and only a fledgling product.²¹ However, since everyone has access to the benefits of doing business on Main Street, even the garage startup company can quickly achieve a dominant position with a superior application.²²

2. The Application Layer and Tiered Networks

A second important concept in the development of the Internet is the notion that networks operate on the Open System Interconnection (OSI) model.²³ In this model, there are layers of control which can be separately managed within a network.²⁴ In the net neutrality debate, the

21. This analogy obviously simplifies the situation because many large Internet companies invest heavily in increasing bandwidth and other infrastructure that will benefit their ability to compete. For example, Google, Microsoft, and Yahoo are all building massive data farms on the Columbia River in rural Oregon to tap the relatively cheap price of electricity in that area. This will enable them to gain an advantage on smaller upstarts who will pay higher prices for electricity, a key expense for large-scale data-centers. See John Markoff & Saul Hansell, *Hiding in Plain Sight, Google Seeks an Expansion of Power*, N.Y. TIMES, June 14, 2006, at A1, available at <http://www.nytimes.com/2006/06/14/technology/14search.html?ex=1307937600&en=d96a72b3c5f91c47&ei=5090#>.

22. See Andrew Ross Sorkin & Jeremy W. Peters, *Google to Acquire YouTube for \$1.65 Billion*, N.Y. TIMES, Oct. 9, 2006, available at <http://www.nytimes.com/2006/10/09/business/09cnd-deal.html?ex=1318046400&en=d3f60bb3f976cfd0&ei=5088&partner=rssnyt&emc=rss> (noting the “meteoritic rise” of YouTube garnering over 50 million users in less than a year); see John Plunkett, *The Rise and Rise of YouTube*, GUARDIAN UNLIMITED, Sept. 14, 2006, <http://technology.guardian.co.uk/news/story/0,1872411,00.html> (noting that YouTube was the fastest growing brand in the U.K. in the first six months of 2006).

23. For a brief introduction to the OSI model, see Wēbopēdia, *The 7 Layers of the OSI Model*, http://www.webopedia.com/quick_ref/OSI_Layers.asp (last visited Sept. 16, 2007).

24. *Id.*

most important layer is the application layer. The application layer is also the most familiar to end-users because it supports applications such as File Transfer Protocol (FTP) and Hypertext Transfer Protocol (HTTP), which respectively allow for file transfers and Internet web browser usage. The key to the application layer is that it can be managed separately²⁵ and that it is unregulated by any United States' regulatory mechanism.²⁶

Tiered networks are important to net neutrality because they allow for regulation of different layers of functionality.²⁷ A tiered network would allow an administrator or an automated switch to distinguish between certain types of traffic and manage them accordingly.²⁸ This management could include segregating "high priority" traffic to give a consumer a higher quality of service (QoS) for high-bandwidth applications or allowing telecom companies to essentially charge tolls for content from certain non-preferred providers.²⁹ An example of this type of recognition and management of traffic is found in the common corporate network environment, where the company uses application level restrictions to limit traffic from certain websites and the downloading of files (for example, filtering MP3s).³⁰ This "filtration" concept could be extended to the wider Internet to give application level preference to people who desire a higher QoS and may be willing to pay for it. While there may be significant advantages to this model, it is decidedly non-neutral and has significant drawbacks when an anti-competitive marketplace is introduced.

25. Lawrence B. Solum & Minn Chung, *The Layers Principle: Internet Architecture and the Law*, U. San Diego Public Law and Legal Theory Research Paper 55, at 26, June 2003, available at <http://ssrn.com/abstract=416263>.

26. *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 968 (2005).

27. Solum & Chung, *supra* note 25, at 18.

28. Lawrence Lessig & Robert W. McChesney, *No Tolls on The Internet*, WASH. POST, June 8, 2006, at A23, available at <http://www.washingtonpost.com/wp-dyn/content/article/2006/06/07/AR2006060702108.html>.

29. Editorial, *The Web's Worst New Idea*, WALL ST. J., May 18, 2006, at A14, available at <http://www.opinionjournal.com/editorial/feature.html?id=110008391>.

30. This filtration is similar to corporate networks which often have different levels of filtration to give priority to traffic coming from certain preferred or high-end users. See, e.g., St. Bernard Software, *Berger Case Study*, <http://iprism.stbernard.com/berger-case-study.asp> (last visited Sept. 16, 2007).

*B. Historical Role of Telecom**1. Monopolies in the United States*

The telecom sector in the United States has historically been understood as a natural monopoly operating within a highly regulated environment.³¹ However, this simplification is only partially true. Traditionally, only the so-called “last mile” telecommunications, or the wires or wireless access that connects homes and businesses directly to the broader network, has been subject to a natural monopoly, while the backbone network has been somewhat more competitive.³² The logic of why this last mile monopoly has persisted is somewhat obvious. Few consumers would want a multitude of different wires, which all provide virtually the same service, entering their homes.

The major drawback of last mile monopolies is the potential for economic abuse by companies with market power and limited competition. Currently, the extent of real competition varies significantly by locality, and even in wealthy urban areas, market power may be concentrated in one major player.³³

Some argue that the advent of increased competition in the distribution of broadband is sufficient to overturn the historic last mile monopoly; such a distribution would render net neutrality concerns feckless because a truly competitive market will penalize non-neutral players.³⁴ However, this theory is predicated upon the idea that consumers want and will demand a neutral network. Even if increased competition does indeed create a default neutral standard because of consumer choice, without a

31. Michael A. Heller, *The UNE Anticommons: Why the 1996 Telecom Reforms Blocked Innovation and Investment*, 22 YALE J. ON REG. 275, 280 (2005).

32. William H. Lehr, Sharon E. Gillett, Marvin A. Sirbu & Jon M. Peha, Scenarios for the Network Neutrality Arms Race, Presented at the 34th Research Conference on Communication, Information, and Internet Policy, (Aug. 31, 2006), available at http://web.si.umich.edu/tprc/papers/2006/561/TPRC2006_Lehr%20Sirbu%20Peha%20Gillett%20Net%20Neutrality%20Arms%20Race.pdf [hereinafter Network Neutrality Arms Race].

33. *Id.*; see S. Derek Turner, *Broadband Realty Check II: The Truth Behind America's Digital Decline*, FREEPRESS, Aug. 2006, <http://www.freepress.net/docs/bbrc2-final.pdf> (noting that significant problems exist in the methods that the FCC uses in assessing broadband penetration and that many of the positive trending statistics, like regional and price competition, are based on overly optimistic statistical models and do not reflect reality).

34. Network Neutrality Arms Race, *supra* note 32, at 5-6.

concerted effort or regulation, pockets and even regions of non-neutrality may still exist.³⁵

2. Regulation

With a historic lack of real telecom competition in the United States, the fear of monopolistic power is greatest in predatory price discrimination and lack of incentives to evolve and extend telecom applications and services.³⁶ In order to mitigate these ill effects, the telecom sector has always been heavily regulated.³⁷ However, the sector was beset by conflicting and overlapping regulations from states, the FCC, and Congress.³⁸

In the 1996 telecom deregulation, Congress believed that increased competition would result in decreased costs for access and enhanced service.³⁹ However, giving up the traditional monopoly power and regulatory regime has caused adverse effects in the industry. These include regulatory battles and delays in the implementation of technologically feasible services because of regulatory malaise.⁴⁰ The delay is regularly cited as the reason why the United States trails numerous Asian and European countries in broadband penetration.⁴¹ Shedding the yoke of monopolistic power has been challenging for telecom companies in the United States and the result ten years later is a realization that more “competitive choice” is necessary in the deployment of broadband and other emerging services.⁴²

35. However, in perhaps the initial salvo of the neutrality debate, Madison River was sanctioned for attempting an explicitly non-neutral network. See *Madison River Communications, LLC*, F.C.C. No. 05-543 (F.C.C. Mar. 3, 2005) (consent decree), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-543A2.pdf [hereinafter *Madison River*].

36. See *Network Neutrality Arms Race*, *supra* note 32, at 5.

37. See Andrew Odlyzko, *Pricing and Architecture of the Internet: Historical Perspectives from Telecommunications and Transportation*, DIGITAL TECH. CENTER, U. MINN., Aug. 29, 2004, <http://www.dtc.umn.edu/~odlyzko/doc/pricing.architecture.pdf>.

38. *Id.*; see CHARLES H. KENNEDY, *AN INTRODUCTION TO U.S. TELECOMMUNICATIONS LAW* xxv-xxvi (2d ed. 2001).

39. Telecommunications Act of 1996, 47 U.S.C. § 151 (2002).

40. See Heller, *supra* note 31, at 280-281.

41. See generally Rob Kelley, *Broadband Lag Could Hurt the U.S.*, CNN MONEY.COM, June 17, 2005, <http://money.cnn.com/2005/06/16/technology/broadband/index.htm>; Organisation for Economic Co-operation and Development, OECD Broadband Statistics to June 2006, http://www.oecd.org/document/9/0,2340,en_2649_34223_37529673_1_1_1_1,00.html (last visited Sept. 16, 2006) (showing data from June 2006 where the United States ranked 12th internationally in per-capita broadband penetration).

42. S. REP. NO. 109-355, at 2 (2006), available at http://thomas.loc.gov/cgi-bin/cpquery/?&dbname=cp109&sid=cp109jpCLS&refer=&r_n=sr355.109&item=&scl=TOC_3662&.

3. *Information Services vs. Telecommunication Services*

In its effort to deregulate, the United States has been beset by a strange dichotomy of regulation in regards to Internet and telecommunications services. The confusion between Internet and telecommunication services rests upon the regulatory distinction between the classification of a "telecommunications service" and an "information service."⁴³ While the line between these "services" and traditional telephone telecommunications services are often undefined from a technical perspective, the classification is extremely important. Telecommunication services, such as local and long distance telephone service, are subject to substantial regulation.⁴⁴ On the other hand, information services, which allow for Internet access through ISPs and other advanced services, are free from regulation.⁴⁵

This is an important concept for the current regulatory environment in the United States because if a service is classified as an "information service," it is essentially free from regulation.⁴⁶ The recent trend in classification has demonstrated a tendency to designate new technologies as information services. In 2005, the Supreme Court in the *Brand X* decision upheld the FCC's decision that cable modem service would be classified as "information services" under the Telecommunications Act of 1996.⁴⁷ A few months later, the FCC classified DSL service as an "information service,"⁴⁸ thereby bringing DSL in line with cable modem classification.⁴⁹

The purpose of this change in designation was to "benefit American consumers and promote innovative and efficient communications."⁵⁰ In contrast, "telecommunications services" is subject to regulations that

43. Cherie R. Kiser & Angela F. Collins, *Regulatory Considerations for Cable-Provided Voice Over Internet Protocol Services*, 819 P.L.I/PAT 341, 347 (2005).

44. Network Neutrality Arms Race, *supra* note 32, at 4-5.

45. Daniel Tynan, *Cable Vs. DSL: CNET's Guide to Choosing the Right Broadband Connection*, C|NET REVIEWS, Dec. 3, 2002, http://reviews.cnet.com/4520-6536_7-726601-1.html (both DSL and cable services, although using separate physical hardware, are commonly thought of as close substitutes); *see* 47 U.S.C. § 153(20) (defining "information service"); *see* 47 U.S.C. § 153(46) (defining "telecommunications service").

46. *See* William G. Laxton, Jr., *The End of Net Neutrality*, 2006 DUKE L. & TECH. REV. 10, 15 (2006).

47. Telecommunications Act of 1996, 47 U.S.C. § 153; *Brand X*, 545 U.S. at 968.

48. Appropriate Framework for Broadband Access to the Internet et al., 20 Fed. Comm'n's Comm'n Rec. 14853 (F.C.C. Aug. 5, 2005) [hereinafter FCC DSL Classification Order].

49. Tynan, *supra* note 45.

50. FCC DSL Classification Order, *supra* note 48.

require that it too “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.”⁵¹

The difference between the purposes of these services is striking. While the information service is consumer oriented and promotes the obvious commercial aspects of innovation and efficiency, the telecommunications service regulation is aimed at interconnectivity and guaranteeing access. This distinction is a harbinger of the net neutrality debate because advocates of neutrality want both classification characteristics to guide the Internet.⁵² They cite the extraordinary benefits of universal interconnectivity and access traditions of telecommunication services, while at the same time, reveling in the triumph of the lucrative commercial aspects of information services.⁵³

a. Classification Example

The recent move by Verizon and BellSouth to “drop” universal service fees is an example of the problem with the classification system.⁵⁴ In the aftermath of the *Brand X* decision, broadband service was classified as an information service, and the FCC no longer required telephone companies to levy universal service charges.⁵⁵ However, in a nod to the market power enjoyed by these companies in the new deregulatory environment, both Verizon and BellSouth instituted a substitute charge, respectively called a “supplier surcharge” and a “regulatory cost recovery fee.”⁵⁶ Verizon even went so far as to explain to customers that the new cost was not a government fee or tax, but instead was to help “offset

51. *Brand X*, 545 U.S. at 975 (citation omitted).

52. See “Network Neutrality:” *Hearing Before the S. Comm. on Commerce, Science, and Transp.*, 109th Cong. (2006) (prepared statement of Vinton G. Cerf, Vice President and Chief Internet Evangelist Google, Inc.), available at <http://commerce.senate.gov/pdf/cerf-020706.pdf> (exposing the commercial benefits of the Internet in relation to the tradition of an open network) [hereinafter Vint Cerf Prepared Statement].

53. *Id.*

54. *Verizon to Drop ‘Supplier Surcharge,’* MSNBC, Aug. 30, 2006, <http://www.msnbc.msn.com/id/14588885/>; Press Release, Verizon Announcement: Elimination of DSL Supplier Surcharge Fee (Aug. 31, 2006), available at http://netservices.verizon.net/portal/site/msa/?epi-content=GENERICCONTENT&viewID=content&action=announcementview&epi_menuItemID=3b5b13ac7c2403335f23b61153295c48&nv=F-iv&hsl=true&fr=y&id=fee.

55. Posting of Art Brodsky to TPM Café, http://www.tpmcafe.com/blog/special/guests/2006/aug/22/net_neutrality_platitudes_from_the_ftc (Aug. 22, 2006, 20:05 EST) (universal service charges are required, and in 2006 were typically between \$1.25 to \$3.00 per subscriber).

56. *Id.* (Verizon’s fee was \$2.70 monthly, and BellSouth’s fee was \$2.97, both of which represent an actual increase in the average cost of service after the FCC allowed these companies to reduce fees by declaring DSL service to be an information service).

costs” charged by its network supplier, which, ironically, was Verizon itself.⁵⁷ In response to numerous complaints from consumers and consumer groups and a potential investigation by the FCC, both Verizon and BellSouth announced that they would drop this fee.⁵⁸

Another unintended result, at least partly caused by the archaic telecommunications service classification system and the previous deregulatory era, is the continued stickiness of prices in the Internet access market.⁵⁹ In 1996, the FCC simply deregulated the telecom industry without ensuring the existence of a competitive market. In fact, the FCC continued to allow local governments to regulate access to their markets, despite the fact that they perpetuated monopolies by denying and holding up applications for the benefit of established parties.⁶⁰ Without the ability to enter new markets, mere deregulation will not, by itself, increase competition, drive down costs for consumers, or provide better service.⁶¹

For example, despite the supposed competition between the cable and DSL markets and the effect of the *Brand X* decision which made these services equivalent, a pricing duopoly continues to exist.⁶² In fact, over the last few years, driven by the “bundling” of multiple services, prices generally have shown to be downwardly sticky, or rising much more easily than dropping.⁶³ Thus, without real competition, deregulation and confusing service classifications provide no real value for the consumer.

57. Brodsky, *supra* note 55.

58. *Verizon to Drop ‘Supplier Surcharge,’ supra* note 54.

59. See Art Brodsky, *A Duopoly By Any Other Name...*, PUB. KNOWLEDGE, July 10, 2006, <http://www.publicknowledge.org/node/518> (stating prices for Internet access are perceived to be downwardly sticky because they are resistant to dropping).

60. See, e.g., *FCC Video Vote Ruffles Cable Feathers*, TV TECH. NEWS BYTES, Dec. 22, 2006, <http://www.tvtechnology.com/dailynews/one.php?id=4481> (noting that local communities have traditionally blocked efforts to open up their control over cable franchising).

61. See Press Release, FCC, FCC Adopts Rules to Ensure Reasonable Franchising Process for New Video Market Entrants (Dec. 20, 2006), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-269111A1.pdf. Many who question why the price of cable service continues to climb and localized cable monopolies continue to exist point to the efforts of local governments to thwart the adoption of new cable licensing. *FCC Chief Says Cities Block Cable Competition*, MSNBC NEWS, Dec. 17, 2006, <http://www.msnbc.msn.com/id/16256478/>.

62. Nate Anderson, *Broadband Competition? Not So Much*, ARS TECHNICA, July 12, 2006, <http://arstechnica.com/news.ars/post/20060712-7242.html>.

63. See Brodsky, *supra* note 59; see also Editorial, *Reading Between the Lines of Sprint’s New Surcharge*, AUSTIN AMERICAN-STATESMAN, Jan. 26, 2007, at A16 (noting that when Texas raised corporate taxes, Sprint passed the fee onto consumers by

The lesson from the Verizon/BellSouth and “bundling” experiments is that, if unchecked, companies, especially those with significant market power, may defy government objectives by increasing costs and potentially adding restrictions to a deregulated environment.

b. Emerging Technologies

The debate over information services will also presumably extend to the emerging broadband technologies positioned to supplant cable modem and DSL services.⁶⁴ These services include broadband over powerline (“BPL”), fiber optic, and wireless broadband.⁶⁵ Some argue that the FCC will regulate these emerging services to continually ensure the expansion of service and universal connectivity.⁶⁶

However, a major concern of those who advocate net neutrality is that the new classifications for broadband services will cause the FCC to end common carrier regulations, opening up networks to discrimination without FCC control.⁶⁷ The FCC, perhaps realizing that it opened the bag on this debate, has attempted to reassert dominance in regulation by issuing several policy statements. In FCC Statement 05-151, the Commission stated that it has “jurisdiction necessary to ensure that . . . services are operated in a neutral manner.”⁶⁸ While the statement may appear to end the debate on the net neutrality of “information service” networks, in reality, it was merely precatory and is not currently enforceable.⁶⁹ In fact, the FCC has recognized the lack of real enforceability and has campaigned for the necessary authority.⁷⁰

including it as a government surcharge in addition to their advertised rates. However, when a corresponding tax decrease was passed, Sprint did not pass the savings on to consumers).

64. Laxton, *supra* note 46, at 9.

65. *Id.*

66. See generally Grant Gross, *Broadband Network Neutrality: Advocates Push For Policy*, NETWORKWORLD, Mar. 26, 2004, <http://www.networkworld.com/news/2004/0326broadnet.html> (advocating the adoption of FCC calls to regulate the broadband industry).

67. See Laxton, *supra* note 46, at 14.

68. Appropriate Framework for Broadband Access to the Internet et al., 20 Fed. Comm’n’s Comm’n Rec., 14986, 14988 (F.C.C. Aug. 5, 2005).

69. Laxton, *supra* note 46, at 14.

70. *Id.* at 8 (quoting FCC Commissioner Michael J. Copps that he prefers a “rule that [the FCC] could use to bring enforcement action” instead of a mere Policy Statement).

C. Network Freedom: The Four Freedoms

The major position by the FCC was articulated by ex-Commissioner Michael Powell in his famous Four Internet Freedoms speech.⁷¹ These four freedoms are 1) the freedom to access content, 2) the freedom to run applications, 3) the freedom to attach devices, and 4) the freedom to obtain service plan information.⁷²

The FCC has embraced these articulated freedoms in a recent case in which Madison River, a local ISP, was blocking its customers' use of Vonage's VoIP services.⁷³ To settle the dispute, Madison River entered into a consent decree with the FCC, agreeing to pay a fine and not to block any VoIP services.⁷⁴ The FCC based its arguments upon common carrier regulation of broadband DSL as a telecommunication service.⁷⁵ Ironically though, now that DSL is considered an information service, Madison River could decide to once again block Vonage without repercussion.⁷⁶ As an interesting aside, Madison River had to consent to allow all VoIP services, regardless of their origin, thus suppressing potential discrimination based upon company or geography.⁷⁷

1. The New Four Freedoms Restated

Soon after Powell's declaration, the new incoming FCC chairman, Kevin Martin, restated the four freedoms in a more limited manner in an official FCC policy statement.⁷⁸ The most significant difference was Martin's shift in focus to the entitlements of consumers rather than

71. See Lawrence Lessig, *Voice-Over-IP's Unlikely Hero*, WIRED MAGAZINE, May 2005, at 91, available at <http://www.wired.com/wired/archive/13.05/view.html?pg=4>.

72. See Michael K. Powell, Chairman, Fed. Commc'ns. Comm'n, Remarks at the Silicon Flatirons Symposium on The Digital Broadband Migration: Toward a Regulatory Regime for the Internet Age (Feb. 8, 2004), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-243556A1.pdf.

73. See Laxton, *supra* note 46, at 9.

74. Madison River, *supra* note 35.

75. See Laxton, *supra* note 46, at 9; 47 U.S.C. § 153(10) (defining a "common carrier").

76. See Laxton, *supra* note 46, at 9-10.

77. Madison River, *supra* note 35.

78. See Press Release, Fed. Commc'ns Comm'n, FCC Adopts Policy Statement: New Principles Preserve and Promote the Open and Interconnected Nature of Public Internet (Aug. 5, 2005), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-260435A1.pdf [hereinafter FCC Martin Press Release].

generic freedoms.⁷⁹ This is most clear in the change to the fourth freedom where Martin stated that “consumers are entitled to competition among network providers, application and service providers, and content providers.”⁸⁰ This is an important distinction because instead of being granted transparency into what a network provider may block or “manage,” the consumer is entitled only to the benefits of competition. According to Martin, this is the best manner to ensure the expansion of broadband access.⁸¹

However, another important point in Martin’s policy is that the four freedom principles “are subject to reasonable network management.”⁸² What qualifies as reasonable network management is up for discussion, yet another statement made by Martin clarifies the constraint. Martin stated that “[the FCC] must be vigilant in ensuring that the public safety, law enforcement and consumer protection needs continue to be met.”⁸³ Thus, according to Martin, neutrality freedom is not the goal of the FCC; rather, the goal is to protect the consumers through law enforcement and open competition.

2. Content Blocking

Despite the Madison River consent decree, ISPs are continuing to discriminate against content, especially in emerging information services.⁸⁴ For example, the three major third generation (3G) United States cellular providers are completely blocking content from Slingbox’s SlingPlayer Mobile service.⁸⁵ The service works by utilizing a device installed on a consumer’s set-top cable or satellite box and router. Working in conjunction with SlingPlayer, the device sends a TV video feed to a customer’s cell phone so that he can watch TV directly from home no matter where he is. However, Verizon, Sprint, and AT&T/Cingular have

79. Isen Blog: How Martin’s FCC is Different From Powell’s, <http://isen.com/blog/2005/08/how-martins-fcc-is-different-from.html> (Aug. 7, 2005, 17:07 EST).

80. FCC Martin Press Release, *supra* note 78.

81. See Kevin Martin, *United States of Broadband*, WALL ST. J., July 7, 2005, at A7, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-259927A1.pdf (advocating the deregulation of telephone, wireless, cable and satellite providers to allow competition for broadband services).

82. FCC Martin Press Release, *supra* note 78.

83. Martin, *supra* note 81.

84. See, e.g., Adam Livingstone, *BitTorrent: Shedding No Tiers*, BBC NEWS, May 30, 2006, <http://news.bbc.co.uk/2/hi/programmes/newsnight/5017542.stm> (noting that many ISPs have capped the bandwidth that customers can use when connecting to BitTorrent); Nate Anderson, *Skype Asks FCC to Open Up Cellular Networks*, ARS TECHNICA, Feb. 21, 2007, <http://arstechnica.com/news.ars/post/20070221-8895.html> (noting that Skype’s VoIP service is being blocked by the major cellular providers).

85. Eric Bangeman, *Slingbox Getting No Love From 3G Cellular Providers*, ARS TECHNICA, Feb. 28, 2006, <http://arstechnica.com/news.ars/post/20060228-6289.html>.

stated that they will not allow this service to access their networks.⁸⁶ A spokesman for Verizon, Jeffrey Nelson, bluntly stated: "What runs on our network are our services."⁸⁷

This outright restriction of content is a prime example of a non-neutral stance. In order to block SlingPlayer, these companies have to analyze all incoming IP traffic and discriminate based upon the application.⁸⁸ The result of such activity is that "information service" providers may use economic demands to either completely restrict end-user access to content and services or hinder the success of such services by effectively pricing competitors out of a market.

A second example of competitor restriction in the telecommunications field can be seen in the content blocking reactions of network providers to their competitors. In one example, telecom companies blocked a discount conference call service, FreeConference.com from their networks. The service allowed consumers to set up a conference call for roughly the price of a long-distance call.⁸⁹ Since conference calls are a lucrative niche for telecom companies, the companies blocked customer access to FreeConference.com's telephone number, under the guise that FreeConference.com was violating their acceptable use policies.⁹⁰ For example, AT&T/Cingular's policy states, "We may block access to certain categories of numbers . . . if, in our sole discretion, we are experiencing excessive billing, collection, fraud problems or other misuse of our network."⁹¹ While it may be feasible to envision a scenario where competition for services would entail excessive billing, collection, or fraud problems,⁹² telecom companies essentially characterize the competition as misuse and block content and services that evoke the competition.

86. Despite dire warnings that there is no added benefit to allowing the Slingbox on a cellular network, 3 Group, a British cellular service provider, will allow Slingbox to run on its network as part of a premium service package. See *Slingbox Coming to European Cell Phones*, MSNBC.COM, Nov. 16, 2006, <http://www.msnbc.msn.com/id/15747052/>.

87. Bangeman, *supra* note 85 (noting that all three mobile operators have competing video services).

88. See Eric Bangeman, *SlingMedia on 3G and Mobile TV*, ARS TECHNICA, Mar. 3, 2006, <http://arstechnica.com/news.ars/post/20060303-6305.html>.

89. Paul Kapustka, *Cingular, Quest Blocking 'Free' Calls*, GIGAOM, Mar. 15, 2007, <http://gigaom.com/2007/03/15/cingular-qwest-blocking-free-calls/>.

90. *Id.*

91. *Id.*; Acceptable Use Policy, AT&T Wireless, Nov. 15, 2004, <http://www.wireless.att.com/learn/articles-resources/acceptable-use.jsp> (last visited, June 3, 2007).

92. Martin H. Bosworth, *AT&T Blocks Calls To Competing Conference Call Service*, CONSUMERAFFAIRS.COM, Mar. 19, 2007, <http://www.consumeraffairs.com/news04/2007/03/freeconference.html>.

While telecom companies do have a vested interest in keeping their lucrative conference call business, the dispute also involves an obscure “termination fee,” which the telecom companies contend they pay as result of the discounted conference call service.⁹³ However, after initially blocking access to FreeConference.com, telecom companies were forced to retreat after the FCC threatened them with formal legal action.⁹⁴ Of significant importance to the net neutrality debate is that major network providers’ first instinct in responding to competition and a perceived imbalance (namely, paying termination fees) was to block content and services without consumer or service provider recourse.

3. *Disturbing Pattern in Canada*

In addition to economic pressures, the use of content blocking to suppress unpopular speech is a major concern of neutrality proponents.⁹⁵ For example, in Canada, during a union dispute against the Telus telecom company, Telus blocked subscriber access to a pro-union website.⁹⁶ The company defended its right to block the site by stating that the site advocated financial harm to the company through strike participation.⁹⁷ However, Telus inadvertently blocked access to 766 other websites that were hosted on the same servers as the pro-union website; this caused commentators to note that unintended consequences may occur when companies attempt to selectively block content.⁹⁸

The Telus case again demonstrates that lack of regulation may actually increase the likelihood of discrimination by telecom companies. The combination of unpopular speech restrictions and anti-competitive economic practices call out for a neutrality policy that spans across countries and includes room for regulation.

D. *The European Experience*

Until the 1980s, the traditional telecommunications market in Europe was virtually a balkanization of state controlled monopolies, consisting of both companies and regulatory agencies that controlled all forms of

93. *Id.*

94. *Id.*; Paul Kapustka, *FCC Chairman Martin to Telcos: No Blocking Iowa Calls*, GIGAOM, May 3, 2007, <http://gigaom.com/2007/05/03/fcc-commish-martin-to-telcos-no-blocking-iowa-calls/>.

95. See Tim Wu, *The Filtered Future: China's Bid to Divide the Internet*, SLATE, July 11, 2005, <http://www.slate.com/id/2122270/>.

96. *Telus Cuts Subscriber Access to Pro-Union Website*, CBC NEWS, July 24, 2005, <http://www.cbc.ca/canada/story/2005/07/24/telus-sites050724.html?print>.

97. *Id.*

98. Tom Barrett, *To Censor Pro-Union Web Site, Telus Blocked 766 Others*, THE TYEE, Aug. 4, 2005, <http://thetyee.ca/News/2005/08/04/TelusCensor>.

telecommunication including voice and data.⁹⁹ A watershed event for the European community was the release of the Bangemann Report in 1994 which detailed the need for a strategy to increase interoperability and deregulate the traditional state-owned telecom companies.¹⁰⁰ A major component of the numerous recommendations made in this report was the acknowledgement that the creation of the so-called "information society," through the expansion of telecommunication and information services, would have to be financed primarily by the private sector.¹⁰¹ This was a radical departure from the state-sponsored funding that had traditionally characterized European telecommunications companies.¹⁰²

The end result was that regulators forced many of the state-controlled monopoly companies or the recently privatized former monopolies to share infrastructure and connections with new upstart rivals.¹⁰³ This move was intended to create an initial level playing field for startup telecom companies to ensure some competition.¹⁰⁴ However, the actual results show that the overwhelming number of former state monopolies still have dominant positions in their original regions.¹⁰⁵

99. See Viviane Reding, Member of the Eur. Comm'n Responsible for Info. Soc'y and Media, Address at the Annual Meeting of BITKOM: The Review 2006 of EU Telecom Rules: Strengthening Competition and Completing the Internal Market (June 27, 2006), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/422> [hereinafter EU Telecom Review 2006].

100. See BANGEMANN REPORT, EUROPE AND THE GLOBAL INFORMATION SOCIETY RECOMMENDATIONS TO THE EUROPEAN COUNCIL, May 26, 1994, available at www.regiony.nck.pl/download.php?id=73.

101. See *id.*

102. See, e.g., BT Group, The Historical Development of BT, <http://www.groupbt.com/Thegroup/BTsHistory/History.htm> (last visited Sept. 16, 2007) (noting that while British Telecom's telecommunications monopoly in the United Kingdom officially ended in 1984, the government did not fully divest ownership until 1993, and as of late 2006, BT is still the overwhelmingly dominant telecommunications carrier in the United Kingdom).

103. See William Echikson, *EU Calls to Rein in Former Telecom Monopolies*, CELLULAR-NEWS, June 27, 2006, <http://www.cellular-news.com/story/18011.php>.

104. See *id.*

105. See Kevin J. O'Brien, *Rivals Burrow Into European Telecom Monopolies*, INT'L HERALD TRIB., Nov. 6, 2006, <http://www.iht.com/articles/2006/10/22/business/broadband23.php> (noting that despite deregulation, merger activity and increasing competition, former state monopolies continue to have overwhelming market share in their original markets).

1. *Europe Information Society and Media*

The attitudes held by the European community markedly differ from those held by Americans. Europeans focus less on consumer rights and more on libertarian values of free speech.¹⁰⁶ In a declaration of European telecom policy, Viviane Reding, the current European Union Commissioner for Information Society and Media, stated that the overarching policy goal in European Community telecommunications policy was the “need to respect fundamental human rights and to protect freedom of expression.”¹⁰⁷ The importance of this statement cannot be overstated. It stands in stark contrast to FCC Commissioner Martin’s theme of protecting consumers and fostering competition. Conversely, Reding advocates human rights through competition.

This contrast can be extrapolated into the net neutrality debate: Europe emphasizes human rights and unfettered access to content while the United States focuses on allowing consumers to make their own decisions about what type of rights or content access they wish to purchase. The interesting similarity is that both models suggest that less regulation and more competition will accomplish these goals.¹⁰⁸

However, the European Union has several structural challenges that are not present in the federal United States’ regulatory model. For example, while the United States has a single regime for allocating services, such as wireless spectrum management, Europe has 25.¹⁰⁹ Additionally, European Union countries hinder deregulation by actively supporting and attempting to regulate emerging technologies,¹¹⁰ despite the strict prohibition against such action in the seminal European Union Communications Framework of 2002.¹¹¹

106. Viviane Reding, Member of the Eur. Comm’n Responsible for Info. Soc’y and Media, Address at the Internet Governance Forum: The Internet—Key to Freedom, Democracy and Economic Development (Oct. 30, 2006), *available at* <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/650> [hereinafter EC Key to Internet Speech].

107. *Id.*

108. EU Telecom Review 2006, *supra* note 99 (advocating the increase in competition as the only way to ensure that the Internet remains content neutral and free); Martin, *supra* note 81.

109. EU Telecom Review 2006, *supra* note 99.

110. See Echikson, *supra* note 103; EU Telecom Review 2006, *supra* note 99 (arguing against the German efforts of restricting competition through their support for the new VDSL network being built by the former state telecom monopolist Deutsche Telekom).

111. See Council Directive 2002/21, On a Common Regulatory Framework for Electronic Communications Networks and Services, 2002 O.J. (L108) 33 (EC), *available at* http://www.ofcom.org.uk/static/archive/Ofel/ind_info/eu_directives/framework.pdf [hereinafter EU Communications Framework of 2002].

E. Challenges to the European Community System

The European Union's attempt to create pan-European consistency in the regulatory environment appears similar to the increased federalization of telecom law in the United States. However, while the United States has the ability to preempt local restrictions,¹¹² the European Commission is stymied by sovereignty issues.¹¹³

European Community communications law is primarily governed by the frameworks put in place in 1998 and 2002, which were intended to ensure sustainable competition.¹¹⁴ Two core elements of these directives are the separation of content and networks in the regulatory scheme and the "pursuit of technological neutrality."¹¹⁵

Separation of content and networks from the regulatory framework was intended to offer the greatest opportunity for increased competition on the network side.¹¹⁶ This is because a member of the European Community could not couple their network competition with specific content that ran on that network. In essence, the European Community has removed the technical regulation of the network and instead implemented an economic regulatory environment based on neutrality.¹¹⁷

By instituting a policy of "technological neutrality," the European Community's communications framework was established so that there would be no preference for a particular technology over another as a result of regulation.¹¹⁸ The advantages of this goal are two-fold. First, it allows the market to determine what technological standards will be most desirable and adopted by consumers and businesses. Second, it

112. See *TC Sys., Inc. v. Town of Colonie, NY*, 263 F. Supp. 2d 471 (N.D.N.Y. 2003) (holding in part that the federal Telecommunications Act preempted local telecommunications rules).

113. See EU Telecom Review 2006, *supra* note 99.

114. See Mira Burri Nenova, *The Law of the World Trade Organization and the Communications Law of the European Community: On a Path of Harmony or Discord?* 15, 31 (NCCR Trade Regulation, Swiss Nat'l Ctr. of Competence in Research, Working Paper No. 2006/08, 2006), available at http://www.nccr-trade.org/images/stories/publications/wto_paper_finalnccr.pdf.

115. *Id.* at 32.

116. *Id.* at 39 n. 259 ("[T]echnological neutrality means that legislation should define the objectives to be achieved, and should neither impose, nor discriminate in favour of, the use of a particular type of technology to achieve those objectives.").

117. *Id.* at 39.

118. *Id.*

allows for flexibility in the adoption of new technologies because the regulatory framework is not wed to a specific form of communication.¹¹⁹

1. A German "Regulatory Holiday"

Despite the laudable intention of the European Community's content and network separation and technological neutrality, the European Community still has significant enforcement challenges. For example, German politicians have been pushing a so-called "regulatory holiday," which proposes that new markets should only be regulated if there is a problem for sustainable competition in the "long term."¹²⁰ The intent of this proposal is to protect a new Very High Digital Subscriber Line (VDSL) network currently under construction by Deutsche Telekom from European-wide competition.¹²¹

The striking feature of the German provision is not that Germany would seek to protect a former state telecom monopoly from competition, but that the European Community Commission must make a pointed lobbying effort to dissuade the German parliament from protecting the former state telecom monopoly.¹²² Despite the existing European Community policy, German agreement as to the Commission's regulatory powers, and Germany's status as the largest economy in the European Union, the Commission currently does not have the enforcement power to stop the German government from implementing the protectionist telecom policy.¹²³

2. Policy Impact on Net Neutrality

The impact of the European-style of neutrality on the network neutrality debate is two-fold. First, as demonstrated by the "German problem," without power to regulate, the European Community is

119. *Id.*

120. This proposal is the so-called "Paragraph 9a TKG" provision that the European Community believes would result in re-monopolization of telecom networks. See generally EC Key to Internet Speech, *supra* note 106; Kevin J. O'Brien, *German Parliament Approves Rules Banning Rivals from Deutsche Telekom's New Network*, INT'L HERALD TRIB., Dec. 15, 2006, <http://www.ihf.com/articles/2006/12/15/business/telekom.php>.

121. EU Telecom Review 2006, *supra* note 99. For more information on the concerns of the EC Commission, see Stefan Krempf, *Widerstand gegen "Regulierungsferien" für die Telekom Wächst Weiter*, HEISE ONLINE, June 28, 2006, <http://www.heise.de/newsticker/meldung/74834>.

122. See EU Telecom Review 2006, *supra* note 99.

123. However, the European Community can commence infringement proceedings. See Tom Jowitt, *EU Threatens Incumbents With Structural Separation*, COMPUTER BUS. REV., Jun. 29, 2006, http://www.cbronline.com/article_news.asp?guid=1166875A-4FEE-4D47-B26E-270BBA8D4EC1.

impotent and cannot impose regulation that may be necessary to ensure neutrality on par with a potential North American standard.¹²⁴ Second, by seeking technological neutrality, coupled with content and network separation, the European Community hopes to institute a default network neutral environment by separating content and service from telecom companies, an interesting idea untried in the United States.¹²⁵

F. Content Blocking in Europe

Despite claims that Europe has a content neutral tradition, content blocking is an ongoing problem,¹²⁶ notably in Europe's emerging 3G wireless market.¹²⁷ For instance, European mobile operators block VoIP providers from using their networks to prevent the competing service.¹²⁸

The paradox of a content neutral tradition that tolerates content blocking can be understood from two perspectives. Tolerating content blocking is either a function of the 3G cellular company's market position or an example of the spread of corporate-style "regulatory holidays" which potentially pave the way for private networks to operate in a non-neutral environment. While it is debatable which theory applies

124. The European Community has been only willing to take action against companies that meet the threshold market share, currently situated at 25% of a definable geographic region; thus, true neutrality, while theoretical, is not actually present. See Thomas Kiessling & Yves Blondeel, *The EU Regulatory Framework in Telecommunications—A Critical Analysis*, (June 15-16, 2008) (paper presented at the ITC Semi-annual Meeting, Helsinki, Finland), available at http://itc.mit.edu/itel/pubs/kiessling_paper.pdf.

125. If United States' telecommunications and cable companies do not have their own exclusive content they often pair with content providers to increase their "product offerings." See, e.g., AT&T Yahoo! Broadband: What You Get, http://promo.yahoo.com/att/what_you_get.html (last visited Sept. 16, 2007).

126. Concerns about the European Union content neutrality commitment are well-founded because the European Union has a tradition of blocking content that they deem to cause harm. For instance, European Union countries have traditionally prohibited common United States marketing content, including prescription drug advertising and even comparative product advertising. Declan McCullagh, *What Europe (still) Doesn't Get*, C|NET NEWS.COM, June 21, 2004, [http://news.com.com/What%20Europe%20\(still\)%20doesn't%20get/2010-1028_3-5241683.html](http://news.com.com/What%20Europe%20(still)%20doesn't%20get/2010-1028_3-5241683.html).

127. See Barney Lane, *Does Europe Need Regulation to Preserve Net Neutrality?*, OVUM, May 15, 2006, <http://www.ovum.com/go/content/c,62120,64174>.

128. See *id.* However this problem is not merely confined to Europe. As previously noted, in the United States, 3G cellular providers have been continuously blocking services and content that either directly competes with one of their service offerings or uses excess bandwidth without compensation. See Bangeman, *supra* note 85.

to the 3G market, it is certain that if Europe tolerates discrimination on emerging networks, its tradition of neutrality will come to an end.

European content neutrality has also been challenged by nations who attempt to impose country-specific laws on Internet content within their borders.¹²⁹ For instance, a French court famously fined Yahoo for not complying with French law banning the sale of Nazi memorabilia within the country.¹³⁰ The justification for the fine was that French citizens could access the website, even though the content was intended for a different audience. While the case was settled out of court, the result was as unsatisfying as that of the Canadian Telus case. Both show how unpopular speech can easily be used as a justification for content blocking. Thus, they demonstrate that potential free speech restrictions may be an additional reason why neutrality regulations are required.¹³¹

G. Internet Governance Forum

An interesting corollary to the net neutrality debate comes from the increasing efforts to establish a multi-national Internet governance policy.¹³² The effort was furthered in Athens, Greece in October of 2006 when the inaugural Internet Governance Forum was launched.¹³³ While the forum primarily focused on expanding the Internet to accommodate the ideas and opinions of “stakeholders” other than ICANN¹³⁴ and the United States government, there was also a significant expectation that network neutrality was obtainable on an international scale.¹³⁵ However,

129. McCullagh, *supra* note 126. The general manager of an ISP in Germany was convicted of trafficking in child pornography merely because the content passed through his company’s network. Brandon Mitchener, *Ex-CompuServe Official Convicted in German Court*, WALL ST. J., May 29, 1998, at B7. However, the conviction was overturned on appeal because the court found there was no technological solution that he could have used to block the pornography. Edmund L. Andrews, *German Court Overturns Pornography Ruling Against CompuServe*, N.Y. TIMES, Nov. 18, 1999, at C4.

130. McCullagh, *supra* note 126.

131. As previously mentioned, both Commissioner Martin and his European counterpart have identified free speech and access to content as one of the most important benefits of the Internet access.

132. See Christopher Wilkinson, *Public Policy Issues in Internet Governance*, ONTHEINTERNET, Jan./Feb. 2002, <http://www.isoc.org/oti/articles/1201/wilkinson.html>.

133. See Nitin Desai, *Dialogue Needed on Internet’s Future*, BBC NEWS, Oct. 30, 2006, <http://news.bbc.co.uk/2/hi/technology/6081440.stm>.

134. The Internet Corporation for Assigned Names and Numbers (ICANN) is the organization responsible for IP address allocation and other administrative functions essential to the organization of the Internet. For more about ICANN, see <http://www.icann.org/tr/english.html> (last visited Sept. 16, 2007).

135. Note that many of the countries that are most critical of US-centric Internet governance are also, according to many human rights groups, some of the most repressive countries in the world, including Tunisia, Cuba, Iran, and China. Many fear that the push for these countries to create an “International Internet policy” would actually decrease openness and further a non-neutral agenda in order to restrict free

critics commented that the Internet is doomed to balkanization because a lack of net neutrality could allow for the development of rival internets.¹³⁶

To remedy the threat of balkanization, the forum called for an international online bill of rights that would be analogous to the rights guaranteed by the Universal Declaration of Human Rights.¹³⁷ While those proposing internationalizing Internet governance may have had good intentions, a comparison to the Universal Declaration of Human Rights is misplaced because the rights of a consumer to access the Internet are not akin to freedom from slavery or the right to life and liberty.¹³⁸

Yet, the relevance of the Internet Governance Forum resides in how international organizations may try to dictate Internet policy. This is of fundamental importance to the net neutrality debate because if technical or content neutrality is proposed as an essential objective, United States resistance will be more difficult and adherence to a particular position on neutrality may be a pre-condition to international agreements. However, the enforceability of any such declaration would be advisory at best and potentially open to endless interpretation by the United States; thus, such a declaration is a promising, but unlikely, solution.¹³⁹

expression into their countries. This effort may be akin to the recent undermining of human rights by stocking the United Nations Human Rights Council with such notorious rights abusers as Cuba, China, Zimbabwe, and Libya. See generally Mark P. Lagon, Deputy Assistant Sec., Int'l Org. Affairs, Statement before the H. Int'l Relations Comm., Subcom. on Africa, Global Human Rights, and International Operations: UN Human Rights Council: Reform or Regression, (Sept. 6, 2006), available at <http://www.state.gov/p/io/rls/rm/71839.htm>; Kate Mackenzie, *FT Briefing: Internet Governance*, FIN. TIMES, Nov. 16, 2005, <http://search.ft.com/ftArticle?ct=0&id=051116006854>.

136. Darren Waters, *Warning Over 'Broken Up' Internet*, BBC NEWS, Oct. 11, 2006, <http://news.bbc.co.uk/2/hi/technology/6037345.stm>.

137. *Id.*

138. Universal Declaration of Human Rights, G.A. Res. 217A, at 72-73, U.N. GAOR, 3d Sess., 1st plen. Mtg., U.N. Doc A/810, (Dec. 12, 1948).

139. The IGF was not set up as a decision making body. The Chairman of the forum stated that "[n]o-one wants to duplicate a telecoms-type regulator on the internet." Thus, the impact of the conference may be advisory at best. Waters, *supra* note 136.

H. The World Trade Organization (WTO)

United States' regulation of foreign telecommunications is generally concerned with foreign ownership of United States' communication services and the pricing structures of international agreements.¹⁴⁰ Historically, there was substantial review of foreign telecom ownership applications from competitive, foreign policy and national security standpoints.¹⁴¹ However, with the adoption of the WTO Basic Telecommunications Agreement,¹⁴² the landscape was noticeably simplified. It created a rebuttable presumption that a WTO country's telecom investment would be subject only to the same market power and competition requirements applicable to companies in the United States.¹⁴³ The result is that foreign telecom companies are treated the same as United States companies.

Ominously, however, the WTO Basic Telecom Agreement allows a country to place "reasonable conditions" on access and use of public telecommunications networks to strengthen a country's internal services.¹⁴⁴ A country, rather than a corporation, may decide to create a non-neutral network to further a native technology or protect a current or formerly state-sponsored company. This could be an especially potent threat to net neutrality in countries where there are only a few telecom players.

III. MOVING TOWARD NET NEUTRALITY

A. The Argument For Net Neutrality

As of late 2005 and 2006, there has been much commentary on the supposed benefits of "continuing" the tradition of a neutral network.¹⁴⁵ The main advocates for a United States legislative solution have been the large Internet companies, such as Google, Yahoo!, Microsoft, eBay, Amazon and IAC/InterActive.¹⁴⁶ But, net neutrality advocates have made

140. See Kennedy, *supra* note 38, at 203-05.

141. *Id.* at 202.

142. General Agreement on Trade in Services, Apr. 15, 1994, Annex on Telecommunications, 33 I.L.M. 1125 at art. 5(a) (1994), available at http://www.wto.org/english/tratop_e/serv_e/12-tel_e.htm [hereinafter GATS Telecom Annex].

143. Kennedy, *supra* note 38, at 206.

144. GATS Telecom Annex, *supra* note 142, at art. 5(g).

145. For a collection of articles discussing net neutrality, see Net Neutrality Showdown, C/NET News.com, http://news.com.com/Net+neutrality+showdown/2009-1028_3-6055133.html (last visited Sept. 16, 2006).

146. Letter from Group of Internet Consumers, Content Providers, and Service, Device and Application Companies to Joe Barton, Chairman of Comm. on Energy and Commerce, U.S. House of Representatives, and John D. Dingell, Ranking Member of Comm. on Energy and Commerce, U.S. House of Representatives (Mar. 1, 2006),

strange bedfellows with diverse groups such as MoveOn.org, the Christian Coalition, American Library Association (ALA), and American Association of Retired Persons (AARP).¹⁴⁷

While the parties have different reasons for supporting net neutrality legislation, all agree on the main pro-neutrality argument of consumer protection. Internet companies warn of the possibility of not being able to access their content or having to pay for something that was traditionally free.¹⁴⁸ Some special interest groups, such as the ALA, warn about a more sinister outcome based upon First Amendment restrictions, where supposedly undesirable information would be blocked for political, ideological, or other reasons.¹⁴⁹

1. 95 Theses

Craig Newmark, founder of the ubiquitous classified ad and community portal website, Craigslist.org, has compared the struggle for net neutrality to the importance of the printing press to Martin Luther's posting of the 95 Theses.¹⁵⁰ If Martin Luther had to pay a licensing fee to Gutenberg to use the printing press, Lutheranism would not have developed because the non-commercial 95 Theses would have been too expensive to post.¹⁵¹ This argument can be extended to the current net neutrality debate - in an extreme scenario, if content distributors had to pay a licensing fee or royalty to distribute their content reliably to the intended recipients, a reduction and chilling of non-commercial speech may result.

available at <http://static.publicknowledge.org/pdf/nn-letter-20060301.pdf> [hereinafter Opposition Letter].

147. See Press Release, Christian Coalition of America, Save the Internet.com & MoveOn.org, When it Comes to Protecting Internet Freedom, the Christian Coalition and MoveOn Respectfully Agree (June 16, 2006); ALA Network Neutrality, <http://www.ala.org/ala/washoff/WOissues/techinttele/networkneutrality/netneutrality.htm> (last visited Sept. 16, 2006) [hereinafter ALA Neutrality Views]; Anne Broache, *Push for Net Neutrality Mandate Grows*, ZDNET, Mar. 17, 2006, http://news.zdnet.com/2100-9595_22-6051062.html?tag=nl.

148. Opposition Letter, *supra* note 146.

149. See Broache, *supra* note 147.

150. *Craig's List Founder Compares Net Neutrality with Martin Luther*, ENTERPRISE OPEN SOURCE MAG., June 11, 2006, <http://opensource.sys-con.com/read/233871.htm>.

151. *Id.*

2. The Chinese Example

Another worry of neutrality supporters is the implementation of a system that subtly filters content similar to that used in China.¹⁵² While various players in the United States and Europe push for a more neutral and open Internet, Chinese authorities are increasingly attempting to balkanize the Internet by quietly implementing measures that restrict content.¹⁵³ Interestingly, the filtering in China goes beyond simple content limitations, like restricting the words “democracy” or “freedom,”¹⁵⁴ and extends to the tools that allow the Internet to function, including search engines, chat rooms, blogs, and email.¹⁵⁵

One of the intriguing questions about China is not why it blocks content, but how a nation of over a billion people can effectively filter content on a decidedly non-neutral platform. The answer lies in building a massive firewall around the country and controlling access to the Internet from a relatively small amount of access points.¹⁵⁶ At these access points, Chinese officials have placed routers, sophisticated network computers that “route” Internet traffic to the proper destinations. However, instead of properly “routing” prohibited messages, services, or data, the Chinese routers simply “lose” the information.¹⁵⁷ While intuitively it may seem that “losing” messages would negatively affect the reliability and performance of the Internet in China, it has the opposite effect. By losing the message, the router does not have to repeatedly attempt to find the destination, hence, actually improving Internet performance.¹⁵⁸

A second intriguing aspect of China’s content blocking is the subtle nature of the blocking. Instead of a filter indicating that the specific content is blocked, blocking takes the form of a technical error.¹⁵⁹ Additionally, content blocking changes with current developments; for example, the Wall Street Journal website may be intermittently available

152. Ethan Zuckerman, *One Internet, Indivisible*, INC. MAG., May 2006, at 29, available at <http://www.inc.com/magazine/20060501/views-opinion.html>.

153. Wu, *supra* note 95.

154. Jonathan Watts, *Microsoft Helps China to Censor Bloggers*, THE GUARDIAN, June 15, 2005, available at <http://www.guardian.co.uk/china/story/0,7369,1506601,00.html>.

155. Wu, *supra* note 95.

156. JACK GOLDSMITH & TIM WU, WHO CONTROLS THE INTERNET?: ILLUSIONS OF A BORDERLESS WORLD 92-93 (2006).

157. *Id.* at 93.

158. *Id.* at 94.

159. Compare this method to the Saudi Arabian approach which explicitly informs users that they are trying to view banned content, such as pornography, opposition websites, or Israeli publications. See *List of the 13 Internet Enemies*, REPORTERS WITHOUT BORDERS, Nov. 7, 2006, http://www.rsf.org/article.php?id_article=19603.

depending on its content.¹⁶⁰ Considering the unpredictable nature of the Internet, a Chinese user may deem a technical error to be legitimate and be unaware that the government is actually blocking the site.¹⁶¹

The importance of China's policy is not necessarily in the political dynamic of the country, but rather in the technical feasibility of filtering the Internet on a massive scale. China has demonstrated that by subtly masking filtration while maintaining service levels, a user's Internet experience is not noticeably diminished. The result is an incredibly effective way to prohibit content.¹⁶²

B. The Argument Against Net Neutrality

The counterargument to neutrality legislation turns on the concept that network discrimination can be welfare enhancing.¹⁶³ For example, blocking malware traffic, such as harmful viruses, trojan attacks, service attacks, malfunctioning devices congesting the network, and next generation spam applications, would probably be applauded and paid for at a premium by most end-users and businesses.¹⁶⁴ Additionally, time-sensitive traffic, such as VoIP, is especially vulnerable to periods of low bandwidth because even the slightest hiccup in traffic can render a conversation unintelligible.¹⁶⁵ The perceived remedy for these low bandwidth periods is to guarantee a particular connection speed for those willing to pay more.¹⁶⁶

One critic of potential net neutrality legislation, John Windhausen, Jr., has summarized the four main arguments against any net neutrality legislation: 1) net neutrality legislation is a solution without a problem

160. Wu, *supra* note 156, at 94.

161. *Id.*

162. In the United States and the European Union, this type of filtration could potentially be used by a local ISP to either block content outright or hinder a service to the point where a user refuses to use it.

163. See Network Neutrality Arms Race, *supra* note 32, at 4.

164. *Id.* at 5.

165. Deb Shinder, *Solution Base: Creating a Secure and Reliable VoIP Solution*, TECHREPUBLIC, Aug. 1, 2007, http://articles.techrepublic.com.com/2415-1035_11-94844.html.

166. This discrimination is already occurring in the United States and Canada. For example, the Canadian cable company Shaw has warned that VoIP users will encounter a slow connection unless they "upgrade" to a \$10-per month speed enhancement. Shaw has a competing digital telephone service. Additionally, United States telecom companies BellSouth and AT&T have announced plans to sell "premium" network services that deliver video from preferred providers faster than video from others. See Zuckerman, *supra* note 152.

because Internet development and expansion is still proceeding unabated; 2) the potential blocking/filtering of spam and viruses are significant benefits of a non-neutral platform; 3) since substantial investment has been made into the broadband deployment by telecom companies, those risk-taking companies should be able to make a reasonable return; and 4) net neutrality does not foreclose the ability to charge for a private Internet - it only guarantees that everyone would have the ability to choose to pay for it, or not.¹⁶⁷

An additional consideration against net neutrality legislation is the likelihood of content discrimination by telecom companies. When pressed, most companies have taken a measured approach in response to any potential non-neutral strategies.¹⁶⁸ Several companies have assured the public that they would never discriminate based upon content.¹⁶⁹ Nonetheless, others have seemingly reserved the right to discriminate, and their effort to block neutrality legislation is noticeable.¹⁷⁰ Of paramount concern is whether any potential content blocking or filtration would be a financially self-defeating policy for a telecom company because consumers, assumingly informed of content blocking and filtration mechanisms, would choose a company which does not discriminate over one that does. However, this scenario assumes both that consumers will be informed of any content blocking or filtration mechanisms and that there will be significant comparable Internet connection services in the geographic area to allow for real consumer choice.

C. The Middle: Can you be Neutral on Net Neutrality?

As the net neutrality debate has heated up, some have said that the debate has become so polarized that there is no "neutral" ground.¹⁷¹ One commentator has compared the net neutrality debate to the debate over universal socialized healthcare, in which supposedly no middle ground

167. John Windhausen, Jr., *Good Fences Make Bad Broadband: Preserving an Open Internet Through Net Neutrality*, PUB. KNOWLEDGE, Feb. 6, 2006, available at <http://www.publicknowledge.org/pdf/pk-net-neutrality-whitep-20060206.pdf>.

168. See Gavin O'Malley, *Non-Neutral Net A Boon To Monitoring Companies*, ONLINE MEDIA DAILY, Mar. 9, 2006, http://publications.mediapost.com/index.cfm?fuseaction=Articles.showArticle&art_aid=40755.

169. See Vint Cerf Prepared Statement, *supra* note 52, at 5 (stating that the historical position of telecom companies was to "never discriminate against application providers").

170. O'Malley, *supra* note 168.

171. See Michael Grebb, *Neutral Net? Who Are You Kidding?*, WIRED, May 31, 2006, <http://www.wired.com/news/technology/internet/0,71012-0.html> (commenting on the increasingly polarized debate in net neutrality).

exists.¹⁷² However, several telecommunication infrastructure companies, such as Corning, Motorola, Cisco Systems, Nortel Networks, and Qualcomm, have attempted to voice a middle ground, stating that it is too soon for any net neutrality legislation because the extreme scenarios presented by both sides of the debate have not come to fruition.¹⁷³ But, is delay really middle ground? Or is it an attempt to see how the market for advanced network services will play out? Or alternatively, is the argument the same as that of the telecom industry, that net neutrality is a solution without a problem?

It is important to note that there is substantial financial incentive for companies such as Cisco Systems to advocate for a non-neutral network because of the potential for sales of new hardware devices.¹⁷⁴ Hence, much of this rhetoric is seemingly disingenuous.¹⁷⁵ Since delayed neutrality legislation is really acquiescence to a non-neutral network, a middle ground advocated by industry equipment manufacturers is really a vote for a discriminating network. Thus, like universal socialized healthcare, net neutrality may not have any middle ground.

IV. PROPOSED SOLUTIONS

Any proposed solution to the international net neutrality debate must balance competing forces to achieve the holy grail of telecommunications policy: competitively low prices for almost universal access, high bandwidth, an encouraging environment for new cutting-edge services, and access to all content without restriction. The following section includes critiques of the proposed solutions and offers a hybrid solution.

172. See Telecom Trends: Is Net Neutrality like Universal Healthcare?, http://mhgoldberg.com/blog/2006/03/is-net-neutrality-like-universal_19.html (Mar. 19, 2006 17:29:00 EST). The maxim states that you're either for free healthcare for everyone, or you're against it, and for privatization.

173. See Anne Broache, *Tech Manufacturers Rally Against Net Neutrality*, C|NET NEWS.COM, Sept. 19, 2006, http://news.com.com/Tech+manufacturers+rally+against+Net+neutrality/2100-1028_3-6117241.html?tag=nl.

174. Cisco Systems, *The Cisco Service Exchange Framework: Providing Greater Control for Cisco IP Next Generation Networks* (Apr. 2005) (White Paper, on file with author) (explaining how adoption of the new Cisco framework can allow for a network operator to "granularly" track individuals and deliver them value-added services approved exclusively by the operator).

175. For a summary of industry White Papers showing potential non-neutral plans for broadband Internet, see Center for Digital Democracy, <http://www.democraticmedia.org/issues/netneutrality.html> (last visited Sept. 16, 2007).

A. Eminent Domain

Some believe that only a radical change in the ownership model of the telecom industry can ensure an optimal level of neutrality.¹⁷⁶ In his satirical commentary, Andy Kessler stated that networks should be seized from the United States' telecom industry by applying the recent Supreme Court precedent in *Kelo v. City of New London*.¹⁷⁷ The *Kelo*-derived principle of taking property for a "public purpose"¹⁷⁸ would eliminate the so-called evils of the current telecom industry: stagnant service innovation and predatory monopolist pricing.¹⁷⁹ Under this principle, all private telecom communication lines and equipment would be scooped up by the government, which would ensure that neutrality is enforced.¹⁸⁰

While this solution might be an attractive way to start from scratch in the telecom industry, governments should encourage competition in the telecom industry, not stifle it. Additionally, while seizing networks may reduce the price consumers pay for Internet access and ensure a neutral network, it is likely to be widely criticized and become even more polarizing than the *Kelo* decision itself.¹⁸¹

B. Less Regulation?

The lingering lesson from Kessler's proposal is that by suggesting a radical seizing of the network, the preference for a market-based solution in the form of telecom deregulation is revealed.¹⁸² However, the current, uncompetitive environment, combined with a more limited government role, will lead to less consumer choice and protection, not more.¹⁸³ Therefore, the government must take a more active role in

176. Andy Kessler, *Give Me Bandwidth . . . No One to Root For in the Net Neutrality Debate*, WKLY. STANDARD, June 26, 2006, at 24, available at http://www.weeklystandard.com/Utilities/prINTER_preview.asp?idArticle=12348&R=ECCBA034.

177. See *id.*

178. See *Kelo v. City of New London*, 545 U.S. 469, 477 (2005).

179. Kessler, *supra* note 176.

180. See *id.*

181. See Warren Richey, *Next Big Test of Power to Seize Property?*, CHRISTIAN SCI. MONITOR, Jan. 2, 2007, at 2, available at <http://www.csmonitor.com/2007/0102/p02s01-usju.html> (detailing that since the *Kelo* decision 34 states have passed laws restricting the use of eminent domain for private development, and the decision has been widely criticized).

182. The concept that less regulation leads to the ultimate goals of increased competition, lower prices, and more innovative service was a fundamental purpose of the 1996 Telecommunications law. Telecommunications Act of 1996, 47 U.S.C. § 151.

183. See generally *Lessons from 1996 Telecommunications Act: Deregulation Before Meaningful Competition Spells Consumer Disaster*, Consumer Federation of

regulation based on the perceived public good, not on redistribution of wealth from telecom companies to Internet companies, or vice versa. However, as previously demonstrated, mere deregulation does not necessarily accomplish these intended goals.¹⁸⁴ Thus, if a neutrality policy is to be in effect, regulation must play an essential role; implementing a market-based solution is not enough.¹⁸⁵

Of particular note, pricing regulation in the Internet industry is a complicated matter because the market is dual-sided, meaning that both content providers and consumers pay portions of the cost to deliver service. Therefore, any policy that attempts to regulate the pricing on one side will likely shift the burden to the other, potentially resulting in no net benefits to consumers. Hence, pricing regulation should not be a goal of a neutrality policy, and efforts to couple new service classifications or a showing of market power with a pricing cap or a similar restriction are suspect.¹⁸⁶

C. Statutory Interconnection Proposal

Some fear that a strict neutrality rule dictated by legislation would be excessive in addressing content and service interference and blocking

America, Feb. 2000, <http://www.consumersunion.org/pdf/lesson.pdf> (opining that in many sections of the United States, deregulation has led to less competition and less consumer protection).

184. *Id.*

185. See Letter from Tim Wu, Assoc. Professor, Univ. of Va. Sch. Of Law & Lawrence Lessig, Professor of Law, Stanford Law Sch., to Marlene H. Dortch, Sec'y, Fed. Commc'ns. Comm., (Aug. 22, 2003), available at http://www.timwu.org/wu_lessig_fcc.pdf (advocating a regulatory environment that enshrines a content neutral platform with some market-based decision making by ISPs, including bandwidth and other local restrictions); see also Letter from Robert W. Quinn, Jr., Senior Vice President, AT&T Servs. Inc., to Marlene H. Dortch, Sec'y, Fed. Commc'ns. Comm., (Dec. 28, 2006), available at http://www.fcc.gov/ATT_FINALMergerCommitments12-28.pdf. [hereinafter AT&T Consent Decree] (to expedite the merger of two of the largest players in the cable and telecom industry, the FCC required regulation concessions favoring a neutrality stance). But see Adam D. Thierer, "Net Neutrality" Digital Discrimination or Regulatory Gamesmanship in Cyberspace?, POL'Y ANALYSIS, Jan. 12, 2004, at 22-23, <http://www.cdt.org/speech/net-neutrality/20040112thierer.pdf> (opining that there is a role for regulation in the net neutrality debate, but that role is limited exclusively to ensuring open competition rather than establishing neutrality principles; Thierer calls for a market-based solution to network neutrality).

186. See generally Robert W. Crandall, J. Gregory Sidak & Hal J. Singer, *The Empirical Case Against Asymmetric Regulation of Broadband Access*, 17 BERKELEY TECH. L.J. 953 (2002) (arguing that the asymmetrical regulation of broadband in the United States has not produced pricing benefits to consumers).

concerns. As such, several commentators have sought a middle ground that does not explicitly call for neutrality.¹⁸⁷ One such solution is James Speta's proposed statutory interconnection rule that would require Internet carriers to "interconnect" with other carriers when a carrier's market power threatens competition.¹⁸⁸ This rule would require an Internet carrier (both local ISPs and long-distance connectors) to transport or transit IP-based traffic on an equal footing with any other traffic sold by the carrier to retail customers, where there is evidence that the carrier has "market power" within that geographical or service delivery area.¹⁸⁹ For example, if Verizon has market power in a specific location and provides a for-sale video-on-demand service, it would have to allow a competing company to provide a similar service on the same footing. In order to implement the rule in the United States, the FCC would need the authority to oversee such interconnection relationships and would need to be given enforcement powers.¹⁹⁰

Since under this proposal a network carrier would only have to allow for interconnectivity if it had a substantial share of the retail market, non-neutral private or public networks could be set up entirely as non-neutral, as long as they had a relatively smaller market share and had no end-user business or consumer users.¹⁹¹ The result of this proposal is clear: a neutral network would be created not through legislative fiat, but, instead, by pressure from competition.¹⁹² For instance, it is conceivable that the larger and more dominant a telecom company became in a certain area, the more open its network would be for outer-network services and content because limiting services and content would render it in violation of the interconnection rule. Generally, the most successful companies would not be those that favored their own services over

187. See generally Christopher S. Yoo, *Beyond Network Neutrality*, 19 HARV. J. L. & TECH. 1, 76-77 (2005).

188. James B. Speta, *FCC Authority to Regulate the Internet: Creating It and Limiting It*, 35 LOY. U. CHI. L.J. 15, 32 (2003).

189. *Id.* at 32-33.

190. Despite statements supporting the advancement of neutrality, the FCC was only able to get a two-year commitment on neutrality from AT&T by using the FCC's power to hold up the AT&T-BellSouth merger as leverage. However, the concession by AT&T is heralded as a stepping stone toward net neutrality legislation. Currently, there is no FCC power to enforce a rule like the proposed statutory interconnectivity rule, although it may be possible to create a default rule under FCC Title I authority. See K.C. Jones, *AT&T Merger Contains First Net Neutrality Guidelines*, TECHWEB, Jan. 2, 2007, <http://www.techweb.com/showArticle.jhtml?articleID=196800499>; see also Speta, *supra* note 188, at 29, 33.

191. Jones, *supra* note 190.

192. However, since content discrimination is more plausible when there is a substitute competing service, an anti-discrimination rule such as the interconnection proposal argues more for antitrust and anticompetitive practice enforcement than it does for an entire wide-reaching neutrality regime.

others but would instead be the companies with the most open access.¹⁹³ Thus, a network carrier's incentives would be aligned with open access and increased bandwidth to ensure that the company could accommodate the new services and content accessed by their customers.

Additionally, FCC enforcement of this interconnectivity rule would ensure that a carrier did not resort to content or service discrimination without harming its own interests. Without FCC enforcement, the interconnection rule would be difficult, if not impossible, to implement because it runs contrary to the usual economic incentives of a company possessing market power. Therefore, FCC oversight would play an important role in leveling the playing field, especially in uncompetitive markets.¹⁹⁴

1. Interconnection Flaws

Despite the benefits noted above, the statutory interconnection proposal has several flaws. The primary flaw is that despite some claims to the contrary, the framework of the Internet is already non-neutral; the end-to-end architecture and best efforts delivery mechanism are inherently non-neutral.¹⁹⁵ For instance, while the "best efforts" mechanism helps to ensure that all messages have a chance to be successfully received, although there may be a mild delay, a bandwidth-sensitive service such as VoIP or streaming web video is consistently thwarted by

193. The reason underlying this theory is that successful companies would either be niche players without significant market power or would have to be entirely open to competing content and services. Here, success is generally equated with expansion of a company's network and acquisition of new customers. It does not refer to corporate profitability or other financial measurements, which may be significantly higher at a smaller "niche" company.

194. A tertiary result of interconnection regulation would be the possible establishment of private networks in niche markets. Thus, many of the touted benefits of a non-neutral network would be realized in potentially lucrative services, such as high-definition gaming or telemedicine. See Robert E. Litan, *Catching the Web in a Net of Neutrality*, WASHINGTONPOST.COM, May 2, 2006, <http://www.washingtonpost.com/wp-dyn/content/article/2006/05/01/AR2006050101061.html>; Ken Fisher, *AT&T Sees Benefits to Tiered Internet Service*, ARS TECHNICA, Jan. 12, 2006, <http://arstechnica.com/news.ars/post/20060112-5965.html> (citing comments by an AT&T spokesman who stated that gamers would benefit from a network that controls the QoS connection). But see Tony Greenberg & Alex Veytsel, *Every Time You Vote Against Net Neutrality, Your ISP Kills a Night Elf*, RAMP RATE, Nov. 18, 2006, <http://www.ramprate.com/marketcommentary/RRMarketCommentaryGamingandNetNeutrality.pdf> (arguing that without net neutrality, the future of online gaming is doomed).

195. Yoo, *supra* note 187, at 21.

the system's design. Thus, while the Internet may be historically neutral as to raw content, it has never been neutral as to uses and services.¹⁹⁶

The problem of establishing interconnectivity in the current environment of non-neutral policies¹⁹⁷ is evident when a company has competing services over a widely dispersed region. Instead of finding that a company has market power in a certain location for Internet access, such as is done in the European model, the FCC might be placed in the unenviable position of determining whether a particular company was impeding upon customer access to the bandwidth-intensive service of a competitor which had an equivalent offering in another medium. For instance, suppose that Verizon, a wireless phone operator with significant land-based ISP customers, decided to block high-definition, Internet-based, European soccer videos from being accessed on its wireless network, in response to market research showing that customer access to such videos would negatively affect the number of pay-per-view purchases on cable television for similar soccer matches. Would this be a violation of the interconnection proposal? The query might rest upon whether Verizon has market power in that particular area, regardless of its delivery of equivalent services. Additionally, the ambiguities of what constitutes "market power" would also complicate any potential action in a fast-changing technological environment. The likely result may be so much confusion that uncompetitive interconnection rules would be ignored except in the most obvious cases.

2. *European Union Interconnection Law*

The largest flaw in the statutory interconnection proposal is the risk of non-reciprocation by the European Union. While the European Union Interconnection Directive guarantees that all European Union companies must have an equal playing field for implementation of their networks in other European Union states,¹⁹⁸ it does not guarantee the same service level for foreign services and takes a less liberal view of content and service blocking.¹⁹⁹ Moreover, the European Union Interconnection

196. See Grebb, *supra* note 171.

197. For example, Verizon was sued in late 2005 for allegations that it was improperly blocking email from parts of Europe and Asia in order to potentially cut down on spam. Verizon settled in April 2006 and agreed to change the way that it blocks spam, while admitting no wrongdoing. See *Verizon Offers Refunds For Blocked Emails*, ENT NEWS, Apr. 5, 2006, <http://entmag.com/news/article.asp?EditorialsID=7323>; see also Verizon Class Action Settlement, <http://www.emailblockingsettlement.com> (last visited Sept. 16, 2007).

198. Council Directive 97/33, art. 6, 1997 O.J. (L 199) 32.

199. See, e.g., John Oates, *AllofMP3 Hit by Danish Court Ruling*, THE REGISTER, Oct. 26, 2006, http://www.theregister.co.uk/2006/10/26/itnueski_banned (noting that a Danish court issued a ruling that forces an ISP to block customer access to a foreign website).

Directive merely states that one user will have the ability to communicate with another, but it does not guarantee a level of service.²⁰⁰

American-style free speech and content neutrality is not a value held in the same level of esteem by the European Union. While the United States could adopt a de facto neutral policy by implementing an interconnection rule, Europe would likely require a myriad of exceptions that would violate the spirit of Speta's interconnection proposal.

D. Tiered Services Regulation

Another potential solution to the neutrality debate is the so-called Tiered Services Regulation option, proposed jointly by Rob Atkinson and Phil Weiser that purports to offer a middle ground.²⁰¹ Atkinson and Weiser propose a three-part plan first defining what actually constitutes "broadband" Internet service; second, proposing tax incentives to encourage development of increased bandwidth; and finally, requiring FCC review and enforcement of anti-competitive agreements and policies.²⁰²

First, determining what actually constitutes "broadband" service is an important aspect of any international policy.²⁰³ Services are no longer exclusively defined as "information services" or "communication services," as distinguished in the *Brand X* decision.²⁰⁴ While Atkinson and Weiser propose that the standard for "broadband" service be set at a speed of 2Mbps, the real importance of a minimum standard is in the effort to actually set one at all.²⁰⁵ If the United States truly wants a competitive

200. Statement Issued by the Dir. Gen. of Telecomm., Rights and Obligations to Interconnect Under the EC Interconnection Directive, Apr. 1999 (on file with author).

201. Carol Wilson, *Think Tank Offers Net Neutrality Answer*, TELEPHONY ONLINE, June 1, 2006, http://telephonyonline.com/broadband/regulatory/net_neutrality_itif_060106.

202. *Id.*

203. The definition of "broadband" generally differs from country to country and has fluctuated over time. The FCC classifies a broadband service as any service that exceeds 200Kbps. Federal Communications Commission, High-Speed Internet Access—"Broadband," available at <http://www.fcc.gov/cgb/consumerfacts/highspeedinternet.html> (last visited, Sept. 20, 2007).

204. The European Union has no such distinction between information and communication services. See Council Directive 97/33, *supra* note 198.

205. Robert D. Atkinson & Philip J. Weiser, *A Third Way on Network Neutrality*, 13 THE NEW ATLANTIS 47, 56 (2006). While the International Telecommunications Union defines broadband at a primary rate of 1.5 to 2.0 Mbps, the FCC defines it at less than ten times that speed, with a mere 200Kbps qualifying as broadband. See International Telecommunication Union, Birth of Broadband—Frequently Asked Questions, <http://www.itu.int/osg/spu/publications/birthofbroadband/faq.html>, (last visited Sept. 20, 2007);

Internet experience with the European Union, there should be cooperation or parallel interpretations of a minimum standard for broadband that is adjusted in regular time intervals. This cooperation would lead to legitimate comparisons of networks and an even starting point for any neutrality legislation. However, guaranteeing a level of service or defining a broadband standard is something that even high-bandwidth carriers have strenuously tried to avoid because of the inherent fluctuations in Internet connection speeds and the potential liability for underperformance.²⁰⁶

Second, proposing tax incentives to expand broadband is an adequate start in addressing the problem of limited new investments in broadband connections. However, tax incentives should be coupled with significantly more free competition because without significant potential competitors, even tax incentives will not spur increased investments.²⁰⁷

Finally, as in previous proposals, the Tiered Services proposal notes the wisdom of establishing FCC enforcement of rule violations.²⁰⁸ In order to achieve positive results, an entity, such as the FCC, must be given the power to enforce the rules.

E. WTO Annex on Telecommunications

A major obstacle for a non-neutral international consensus is the WTO's Annex on Telecommunications agreement.²⁰⁹ This agreement, of which the United States is a signatory, requires that a member allow foreign usage of the telecommunications network on a non-discriminatory basis.²¹⁰ At first blush, the WTO Annex appears to require that a network be neutral to all foreign content. However, a more careful reading shows that there are several caveats that limit the ability to strictly enforce this neutral policy.²¹¹

Federal Communications Commission, What is Broadband?, <http://www.fcc.gov/cgb/broadband.html> (last visited Sept. 20, 2007).

206. See, e.g., BroadbandInfo.com, *Internet Speeds Inconsistent with Advertised Maximum Broadband Speed*, <http://www.broadbandinfo.com/news/isp-speedometers.html> (last visited Sept. 20, 2007). The connection speed to any one location on the Internet is often entirely independent of the potential speed from the so-called "last mile" of connection from the ISP to the consumer. ISPs frequently trump the potential for a certain speed because they are unable to guarantee an actual speed.

207. Atkinson & Weiser, *supra* note 205, at 56.

208. *Id.*

209. See GATS Telecom Annex, *supra* note 142.

210. *Id.*

211. *Id.* at art. 5(a) (noting that the Annex is intended to be read so that each member regulates domestic companies that provide telecommunications services in a manner consistent with the obligations and expectations enumerated in the Annex). A notable problem facing the WTO is the same problem of service identification that plagues United States telecom law. As the United States makes a noteworthy distinction

Notably, section 5(g) allows a developing country to opt out of the regulations as long as the restrictions are “reasonable” to “strengthen its domestic telecommunications infrastructure.”²¹² The result of this limitation is that certain countries can establish a roughly non-neutral network as long as they are sufficiently underdeveloped or if it is in their best interest.

Additionally, section 5(f) stipulates that even though a country must allow others to use their telecommunications networks, it can limit the usage of certain technical interfaces and standards.²¹³ This limitation allows a country to use a technical standard to engage in content or service blocking. For instance, if a new type of VoIP was developed in Germany that was vastly superior to any current offerings in the United States, telecommunications companies in the United States could attempt to block the service under the guise of technical interoperability, alleging that the new VoIP does not meet interfacing standards.²¹⁴ Nevertheless, a benefit of the WTO Agreement is that it enshrines content and service neutrality into the enforcement provisions of the GATS dispute resolution system, a positive step to international recognition of the importance of neutrality principles.²¹⁵

V. RECOMMENDATION

By combining the several useful provisions from previously discussed proposals and existing frameworks, I suggest a new proposal to aid in accomplishing a desirable network based upon a neutral platform. This recommendation contains five provisions that aim to bind the market to regulations that establish a neutrality principle, while still giving incentives for the implementation of desirable non-neutral platforms. These provisions include 1) implementing a statutory interconnection proposal to

between “telecommunications services” and “information services,” the WTO distinguishes between “basic” and “value-added” telecommunications services. WTO, Coverage of Basic Telecommunications and Value-Added Services, http://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_coverage_e.htm (last visited Jan. 27, 2007) (basic services include any rudimentary voice service, and value-added services include anything that has more than basic, including all Internet services).

212. GATS Telecom Annex, *supra* note 142, at art. 5(g).

213. *Id.* at art. 5(f)(ii).

214. *But see id.* at art. 5(f)(iii) (requiring the implementation of interoperability in communications if the technical standard is adopted as a “global” standard). For an illustration of blocking, see Bangeman, *supra* note 85.

215. *Id.*

treat a competitor's data as a carrier would treat its own; 2) adopting a transparent neutrality stance where content blocking is disfavored but provisions are available to enable development of desirable non-neutrality in niche markets; 3) tax incentives for expansion of neutral services; 4) WTO enforcement of non-neutral government positions and the elimination of exceptions for "technical incompatibilities;" and 5) empowering the FCC to enforce actions against offenders.

A. A New Statutory Interconnection Proposal

By utilizing a statutory interconnection proposal that requires telecom companies to treat a competitor's data in the same manner as they treat their own, a de facto neutrality standard could be established. The interconnection proposal would be based upon Speta's proposal and require a company to provide connectivity to a competitor's services if the company has market power in a specific location. However, while Speta's proposal only requires parity between the ISP's service offering and an equivalent service offered by a competitor, a new proposal should go further and require parity when the ISP and its competitor do not offer the same service. This would deter companies from creating complex partnerships with third-party content providers to skirt the rule. Additionally, removing the requirement of competing services would solve an identified flaw in Speta's proposal: blocking a service when the telecom company has a substitute service. By requiring a market-power telecom company to transport all data equally, there would be no advantage in discriminating in favor of a substitute service.

While this new interconnection proposal may work in the United States, it would have to overcome European content restraints. Since content restrictions are well ingrained in European custom, the United States should tactically insist only on reciprocity from the European Union in the neutrality of services, not content. In practice, this would result in a situation where the French may still ban the sale of Nazi paraphernalia or similar objectionable material, but they could not block the website or the Internet services providing the sale.

B. The Neutrality List

Any new neutrality policy should also make all explicit content blocking and filtration transparent to customers of an ISP and regulators. This policy could take a form similar to the FCC CAN-SPAM Unwanted

Commercial Electronic Mail list.²¹⁶ That program was an effort by the FCC, authorized by the 2003 CAN-SPAM Act,²¹⁷ to compile a list of domains used by mobile wireless devices so that commercial marketers could not transmit unwanted messages.²¹⁸ If companies created a similar list to identify and track the blocking of websites and services in an effort to form a self-reporting mechanism, it would be invaluable both as an FCC regulatory tool and as an information resource for the discerning consumer.²¹⁹

1. Benefits

Also two significant benefits would be achieved by requiring, even retroactively, a company to list and describe any type of filtration and blocking that it is doing on its network. First, the list would give notice to all consumers as to what the company blocks. Consumers could then make educated decisions as to whether they want to subscribe to the company's service. Second, by allowing some blocking and filtration, consumers could still get some of the benefits of non-neutrality, namely the blocking of SPAM, computer viruses, child pornography, and other undesirable content.

216. This list would be more useful to regulators than consumers because it would likely confuse or frustrate consumers due to either its voluminous length or the insufficient explanation as to why something was blocked. For example, many consumers could benefit from an ISP actively blocking spam messages emanating from specific IP addresses, especially those from foreign countries that are fraud. However, for a customer to digest the list of spam addresses and all the actions taken by the ISP would be cumbersome at best. There is a risk that spammers may get a hold of the list and determine which spamming tactics work and which need adjustment. However, this risk is minimal in comparison to the potential utility of the list. It is noteworthy that many ISP's are currently combatting spam messaging using the same blocking technique discussed here. However, ISP's often do this type of blocking behind the scenes, leading to the obvious consumer benefits of reducing spam messages but also leading to unintended negative consequences. See Paul Festa, *Comcast Goofs in Russian Spam Blockade*, C|NET NEWS.COM, Mar. 2, 2004, http://news.com.com/2100-1038_3-5168643.html (noting that for four days, Comcast, one of the largest ISP's in the United States, in an effort to deal with spam, unintentionally blocked all email messages coming from .ru domains, Russia's assigned domain address).

217. Controlling the Assault of Non-Solicited Pornography and Marketing (CAN-SPAM) Act of 2003, 15 U.S.C. § 7701 (2000).

218. Public Notice, Fed. Comm'n. Comm'n, The Consumer & Governmental Affairs Bureau Announces the Availability of a Wireless Domain Names List (Feb. 7, 2005), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-331A1.pdf.

219. A "service" could be defined in much the same way as an "information service" is defined in the Telecommunications Act. 47 U.S.C. § 153(20).

2. Drawbacks

The major drawback of having companies create self-reporting lists is that subtle, Chinese-style filtration could still be used, making it difficult for competing services to get a foothold in a non-neutral network. For example, an ISP that wants to avoid having to report outright blocking could instead use the troubling subtle filtration technique to give preference to its services over those of its rivals. However, subtle filtration is a violation of the interconnection rule. Thus, an ISP would have the choice between reporting the blocking of data and services or treating all data equally.

Another drawback of this self-reporting proposal is that it raises many questions regarding procedural issues. For instance, what would constitute a non-neutral action? Would it entail explicit blocking of sites, or would subtle filtration suffice? How would subtle filtration be measured? What type of explanation would accompany a listed site or service? Who would monitor the list and allegations of blocking or filtration? Who would pay for this system? These questions do not have obvious answers, and while they are beyond the scope of this article, they are important and call for further discussion in creating appropriate regulatory definitions and standards. Additionally, following the lead of the Internet Governance Forum, there is an opportunity during the creation of these United States' neutrality standards to engage the international community in establishing a worldwide neutrality model based upon the twin goals of open competition and anti-protectionist measures.²²⁰

C. Tax Incentives and Competition

Increasing tax incentives for companies that comply with standards of neutrality will go a long way in encouraging content and services neutrality. However, tax incentives should only be coupled with increased competition if international consensus is reached on what constitutes

220. Protectionist measures include the widely-publicized keyword filtering required for any search engine company by the Chinese government. While not a traditional net neutrality issue because there was no actual technological solution or blocking at the transport level, the results were similar and as result billions of Chinese citizens could not access certain websites through major United States search engines. See Press Release, Chris Smith, Congressman N.J. 4th Dist., Smith Criticizes Google for Caving to China's Demand for Internet Censorship, Jan. 25, 2006, www.house.gov/apps/list/press/nj04_smith/printernetchina.html; Lester Haines, *Google and Yahoo! Take a Beating*, THE REGISTER, Feb. 16, 2006, http://www.theregister.co.uk/2006/02/16/china_committee/.

“market power” in a region and then policies and regulations are formulated to increase competition.²²¹

To accomplish the goal of expanding neutrality-based services, incentives must be tailored specifically to the development of a neutral network. As previously shown, a major fear of neutrality proponents is that all new broadband investments will be in non-neutral, content filtered platforms, while the neutral network will only encompass the slower existing network. In such a situation, a tiered network structure would exist where the consumer is forced to either stay at the same neutral-based low broadband speed or pay a premium for a faster, non-neutral broadband network. To prevent this undesirable scenario, all tax incentives and regulations, including negotiations for merger approvals, should be based upon a company’s agreement to neutrality. For example, the AT&T-BellSouth merger consent decree by the FCC contained provisions that would ensure that the resulting company would maintain “network neutrality” for three years.²²² While the fine print in the agreement seems to suggest that AT&T really is not bound by network neutrality,²²³ the intent was laudable. The FCC should take a stronger stance in requiring companies to adhere to neutrality policies as a precondition to any merger agreement. Additionally, Congress should attach the neutrality provision to any appropriation or tax incentive given for future network expansion.

221. A major hurdle for an international net neutrality proposal is the varied interpretations of anti-competitive behavior and market power between the United States and the European Union. See Nenova, *supra* note 114.

222. AT&T Consent Decree, *supra* note 185, at 9.

223. Although there was an agreement to be non-neutral on the existing DSL network, language in the agreement states that the neutrality commitment “does not apply to the AT&T/BellSouth Internet Protocol television (IPTV) service.” *Id.* at 3. This omission is telling because as commentator David Burstein noted, AT&T considers the IPTV service to be the next generation service. See David Burstein (commenting on an article from Paul Kapustka), *AT&T Knows When to Fold'em*, GIGAOM, Dec. 29, 2006, <http://gigaom.com/2006/12/29/att-knows-when-to-fold-em/>. Additionally, commentator Susan Crawford has opined that AT&T is effectively saying, “We’ll keep existing ‘broadband’ access neutral. But when it comes to our new super-duper ‘AT&T Yahoo! High Speed Internet U-verse Enabled,’ well, that’s not up for negotiation. We need to make money there. ‘Enabled’ and ‘broadband’ are not the same thing.” *The Day the Internet Became Cable Television*, <http://scrawford.blogware.com/blog/archives/2006/12/29/2604993.html> (Dec. 29, 2006, 11:49 EST). Despite these obvious setbacks for network neutrality proponents hoping for a truly neutral agreement, commentator Tim Wu has hailed the agreement as an important first step toward neutrality, if for no other reason than the fact that this is the first time the FCC has included neutrality language in a broadband regulatory device. The AT&T Network Neutrality Agreement, <http://www.timwu.org/log/archives/81#more-81> (Dec. 29, 2006, 02:18 EST).

D. A Role for the WTO

The WTO has a significant and important role to play in any international neutrality consensus. The WTO should continue to enforce regulations against anti-competitive behavior, including blocking or filtration, on an international level. The WTO should also allow a country's network to access outside information by removing the "technical incompatibilities" exception.

E. FCC Enforcement

Since the FCC reclassified cable internet and DSL as "information services," it is currently unclear whether the FCC has the authority to enforce net neutrality under current law.²²⁴ Thus, Congress should specifically give the FCC the authority to regulate Internet services, regardless of the archaic distinction between services and historical preference for deregulation.²²⁵

VI. CONCLUSION

In a broader context, the expanding capabilities and rapid innovation of the Internet has rendered many of the traditional regulatory platforms of the historical telecom industry either unnecessary or increasingly burdensome. The international telecom market is complex. The above discussion has shown that the international net neutrality debate is significant, not only from a social impact and regulatory review perspective, but, more importantly, from an economic perspective. While strong contingents have emerged on both sides of the neutrality debate, room for compromise exists with the enactment of varying principles of openness and increased competition.

Without effective regulation, anti-competitive pressures will build to form a multi-tiered Internet where many may pay higher prices for less access. There must be a United States policy that is shaped by open competition, is compatible with international standards and enforcement procedures, and is sensitive to various countries' notions of neutrality in

224. Windhausen, *supra* note 167, at 12; *see also* Joint Statement, Kevin J. Martin, Chairman, Fed. Commc'ns. Comm'n, & Deborah Taylor Tate, Comm'r, Fed. Commc'ns. Comm'n, Re: AT&T Inc. and BellSouth Corporation Application for Transfer of Control, WC Docket No. 06-74, Dec. 29, 2006, *available at* <http://fjall.foss.fcc.gov/edocspublic/attachmatch/DOC-269275A2.pdf> (in a follow-up to the merger agreement, FCC Chairman Martin stated that despite the network neutrality language included in the AT&T/BellSouth merger, the AT&T concessions "in no way bind future Commission action" and that he will not enforce a net neutrality principle).

225. For a thorough history of United States government actions and statements on the potential for net neutrality regulation, *see* Windhausen, *supra* note 167, at 13-16.

content and services. Such a solution will allow for the realization of the benefits of both neutrality and non-neutrality and keep the Internet open to outside innovation and progress.

